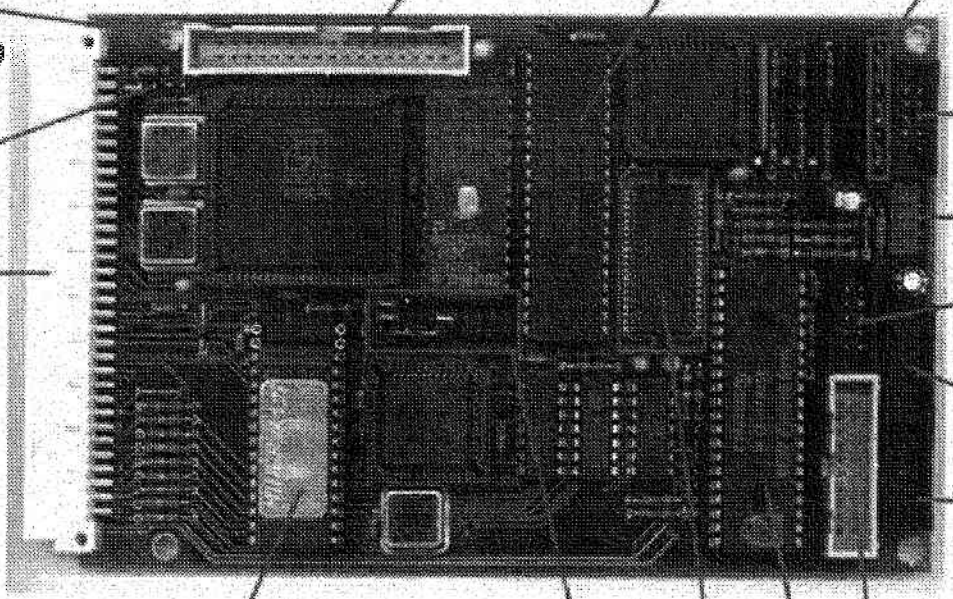
QL Today

Volume 1
Issue 5
Jan./February
1997

ISSN 1432-5454

The Magazine about QL, QDOS, Sinclair Computers, SMSQ...

QL - The Next Generation



QL Today

ISSN 1432-5454

German office & Publisher:
Jochen Merz Software Tel. +49 203 502011
Im stillen Winkel 12 Fax +49 203 502012
47169 Duisburg Box1 +49 203 502013
Germany Box2 +49 203 502014

English office:
Q Branch Tel. +44 1273 386030
P.O. Box 7 Fax +44 1273 381577
East Sussex
United Kingdom BN41 2ND

Editor:
Dilwyn Jones Tel. +44 1248 354023
41 Bro Emrys Fax +44 1248 354023
Tal-Y-Bont, Bangor
Gwynedd
United Kingdom LL57 3YT

QL *Today* is published bi-monthly, our volume begins on 15th of May. Subscriptions begin with the current issue at the time of sign up. Subscription rates are as follows:

Germany	**DM 70,-**
England	**DM 60,- or £25**
Rest of the World	**DM 70,- or £30**

Payment in DM (drawn on a German bank) can be made by either Cheque or Euro-Cheque, Payment in £ (drawn on an English bank) can be made by Cheque. Cheques should be made payable to Jochen Merz Software (German office) or QBranch (English office).

Credit Card holders may subscribe by either calling or sending their Credit Card number and Expiry date. Credit cards will be charged in DM (German office) or in £ (English office).

We welcome your comments, suggstions and articles. YOU make **QL *Today*** possible. We are constantly changing and adjusting to meet your needs and requirements. Articles for publication should be on a 3.5" disk (DD or HD) in ASCII, Quill or text87 format. Pictures may be in _SCR format, we can also handle GIF or TIF. To enhance your article you may wish to include Saved Screen dumps. PLEASE send a hardcopy of all screens to be included. Don't forget to specify where in the text you would like the screen placed.

Article and Advertising DEADLINES are as follows:

Issue 1:	**15 April**	**Issue 2:**	**15 June**
Issue 3:	**15 August**	**Issue 4:**	**15 October**
Issue 5:	**15 December**	**Issue 6:**	**15 February**

Contents

Advertisers

in alphabetical order

Editorial

If you hadn't already guessed, the connection between the computers shown on the cover of issue 4 was the fact that you can use QDOS or SMSQ in some form on all of them. I thought I'd mention it, since I forgot to include the full answer in the last issue! In fact, our beloved operating system is now migrating to so many platforms that I think it may soon be very unfashionable to own a computer without being able to use QDOS or SMSQ on it!

Meanwhile, what about our good old QL? We would all probably agree that the original hardware is very long in the tooth and past its sell-by date. The addition of devices like Super Gold Cards help, but really only tinkers with the inevitable. Or at least that may have been true until the Aurora card came along. Long viewed as just a graphics enhancement card, the work of people like Zeljko Nastasic (Nasta) in Croatia and Ron Dunnett here in Britain means that at last we can start to throw away the original circuit board, since the Aurora Card is a complete motherboard replacement. The low cost (120 pounds), the ability to use existing peripherals like Super Gold Cards, Qubide and keyboard interfaces, the improved graphics capabilities and the ease with which a cased QL system can be built up (some QL companies will probably even offer a build-it-all service for you, though it can with a little work be built into the original QL case) should mean that this device will sell like hot cakes. I hope Qubbesoft P/D can keep up with the demand! QL Today will bring you all the information we can about the Aurora, since it is so important to the QL's future, and since it may well have been launched at last by the time you read this. At last we can say bye bye to microdrives too!

Meanwhile, some of us are forced to turn to PCs, for use with our work, for example. There is a terrible price to pay for having one of these beasts in your house (as Jochen and I have found out to our cost!). But at least it's possible to inject some sense into them by installing a QXL or QPC to allow us to use our existing software, and it's so easy to write our own programs too! And what with the ever increasing sophistication and functionality of QL software thanks to hard working individuals like Jonathan Hudson and the Van der Auwera brothers (PROGS) for example, and the efforts of our dedicated software suppliers, there is no reason whatsoever to turn your back on our beloved operating system.

I wonder what our ingenious band of suppliers will come up with next? (Hint: keep reading the news in QL Today this year!)

During November Jochen, Stuart and I visited the Portishead Quanta Workshop in England, organised by the Bristol area group - see the epilogue to Henry Orlowski's show report for details of what we got up to! What a pleasure it was to attend such a well organised and well attended show at such a comfortable venue (Somerset Hall). Plenty of activity, plenty of people willing to share their knowledge with you, and plenty of famous names from the QL scene were there. If you don't go to QL shows, you should try to attend one as you will find it an excellent day out!

As it's THAT time of year, here is a wish list of some of the things which I hope the QL community will give me during the next year:

1) Internet/World Wide Web access from the QL without having to use a You Know What computer (but see Graham Underwood's article in this issue).

2) 16 and 256 colour drivers compatible across QXL/QPC/Aurora platforms

3) Line Design 3 (or at least an enhanced Word Processing/DTP program)

4) Graphics software to make use of the enhanced graphics (if no one else does it, I may well get tired of waiting and do it myself!)

5) The news that everyone is using pointer environment!

We would like to wish all our readers a very happy new year, and much happy QLing during 1997!

Dilwyn Jones

p.s. I apologise for the pictures in the Portishead Quanta workshop report. Quite a few were taken on the day, but most came out too dark. I think I'd better stick to writing editorials rather than trying to be a photographer!

Please note that due to changes at Miracle Systems, we have a new address for subscribers in Great Britan - see page 2 for details!

"Psst, want to buy a QL emulator for your computer?"

News

EMAIL FOR ALL?

Robin Barker of Di-Ren is investigating the possibility of setting up an email routing facility for those QL'ers who do not have access to the Internet. This may take the form of a secure Bulletin Board where email messages can be left and retrieved. You would of course require a modem and appropriate software. The type of machine used is of no consequence.

We generally send/receive emails once per day, so messages are not answered until the following day (This is in fact how most of us do it!)

There would of course be a charge for this service. For most users I would not expect it to be more than about £3.50 per month. Heavy useage would incur greater costs! It may also be possible to make available some Internet documents as well.

Your email address would look something like:
yourname@di-ren.demon.co.uk

Before setting up a system, he would have to be sure it will be worthwhile. If, therefore, you are interested, please contact Di-Ren to let Robin know.

Robin J. A. Barker, Di-Ren, "Jelanda", Wyndley Drive, Sutton Coldfield B76 1LL, Great Britain. Tel/Fax: 0121 355 3943

Q-COUNT from QBranch

Currently at Beta-test stage is the first pointer driven home accounts program for the QL, called Q-Count. The package is written by John Miller of the Bristol area QL user group in England. John is already known for his work in producing software like the SBASIC-PE Kit featured in QL Today recently and QL War. The package features all the usual home accounts package facilities and is capable of being controlled completely with a mouse if required. Q-Count should be available from QBranch towards the end of 1996 or early 1997, and no price has yet been fixed for it.

QPC CD PLAYER

It had to happen. Just when we had got used to the SBASIC CD Player supplied with QPC, someone goes and writes a full pointer driven version! I suppose it's only a matter of time until we have a plethora of CD player programs, each with ever improving facilities, eventually becoming so complex that no one can understand them and we all return to the good old SBASIC CD player program. This particular one is written in compiled SBASIC by Peter Jäger of Germany. It is fully pointer driven and the screen display resembles a picture of a CD player as you might expect in a typical hi-fi setup. All the usual play, track skip, pause and stop controls are there along with a few other interesting controls. Sadly, the program was only in alpha test version when I saw it and some features were not implemented but I saw enough to realise that when finished and more stable it should be an excellent accessory for your QPC. It has window move facilites, allowing you to shove it out of the way into a little used corner of the screen if you are using the larger VGA or SVGA screen resolutions, for example. The CD player has a small config block built in.

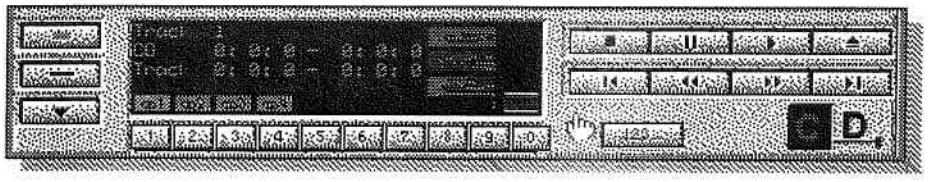
CLUB QL INTERNATIONAL

Mike Kenneally informs us that issue 95 of Club QL's disk-based newsletter should be out shortly after you read this, and asks us to remind QL Today readers that membership is free, all you need to do is send Mike a formatted disk and return postage in a Jiffy bag (and preferably a short Quill _doc file containing a short contribution to the newsletter) before the 28th of the month and you'll get a copy of the monthly newsletter, which can be freely copied for others (all its content is assumed to be PD unless otherwise explicitly stated) after publication, though Mike quite reasonably asks that the club be publicised if possible when the magazine is copied for others. Most issues contain a few extra program or data files, for example, issue 93 contained a front end program for the ZIP utility to help simplify its use, and most issues also contain a database of the National Lottery numbers drawn. ClubQL is hoping to organise a club meeting early next year (non-members apparently welcome), though the exact date and venue have not yet been confirmed. Contact Mike Kenneally for further details:

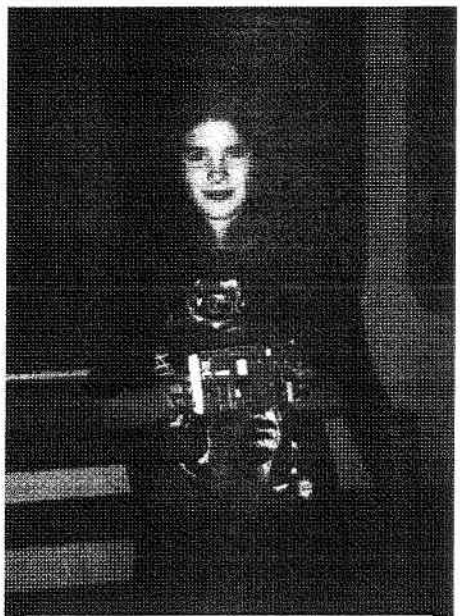
Mike Kenneally, ClubQL International, 6 Barnaby Road, Poynton, Cheshire, SK12 1LR Telephone: (+44) (0)1625-878207

The AURORA Graphics Card

By the time you read this, the Aurora card should be out and driving many users' QL systems across the world. Qubbesoft demonstrated a production model at the Portishead Quanta Workshop in Eng-



land in mid-November and everyone was impressed by how small the replacement motherboard was, how well it worked, how neat and tidy Ron Dunnett's tower cased QL system was (that's a point, are we allowed to call them QL systems any more, or will be calling them Aurora systems?) with the Super Gold Card, QPlane and Qubide cards neatly stacked into an all-in-one solution. A fairly late addition to the project was a QIMI compatible mouse interface, since the relatively small size of the Aurora board would have made it difficult to use the relatively large QIMI interface. You can still use other interfaces which plug into the original QL circuit board, such as superHermes, Diren and Falkenberg keyboard interfaces (although the Falkenberg interfaces are almost as large as Aurora itself). Qubbesoft will be supplying a VGA lead for monitor connection. Software will be provided to patch SMSQ/E to enable the use of the high resolution mode 4 and mode 8 screens, and 16 and 256 colour mode drivers will be available later, and Qubbesoft will be taking steps to ensure that such drivers will be compatible across all platforms using such modes (e.g. on QXL and QPC).



Angela Dunnett of Qubbesoft P/D models what all the best dressed QLs will be wearing by this time next year - an Aurora card! (Apologies to Angela for the poor quality of the photograph).

News on BlackKnight

Apart from the 3D display, the chess program BlackKnight is being rewritten to make it multi-threading and use multi-processors. BlackKnight, running on a QDOS/SMS system, will be able to have any number of "slave" computers helping it to find the best move. It will be possible to have a setup like

Master program running on SuperGoldCard QL
Slave #1: QL with GoldCard using QL network
Slave #2: QXL using QL network
Slave #3: PC PentiumPro using serial port
Slave #4: Amiga 4000 using serial port

The work will be split among the master and the slaves depending on the relative speed of each one. Of course it will still be possible to run BalckKnight on a single machine too! The master program will only be available for QDOS/SMS but the author intends to have slaves running on:

- PC runnings DOS or Windows
- PC running Linux
- Amiga
- NeXT (he's probably the only QL user with a NeXT but so what)

Also master and slave running on QL will be multi-thread. This means that possible responses will be analyzed concurrently and the individual priority of each thread will be adjusted on the fly depending on the results so far. This will allow deeper search for good moves while bad moves are searched less.

News from PROGS

I have now got a home page which is used for ProWesS support. All the ProWesS programming info can now be read on-line. It can all be found at : http://www.club.innet.be/~year2827/
Lots of improvements in ProWesS:

- The font quality has now improved even further. The fonts are now very readable on screen due to both improvements in the shape of the charaters, and more consistent character spacing when displaying text on screen (using some special commands).
- The colour quality has improved. The (too) simple error deffusion which was used before is now replaced with dithering. The dithering pattern can be chosen from some built in schemes, or a user defined scheme.
- Higher level drawing commands added in PROforma.
- The (pixel) accuracy of ProWesS has improved.
- There are some new picture drivers for displaying mode 4 sprites and for displaying LINEdesign pictures.
- A new printer driver has been added which writes to a monochrome _pic file.
- The DeskJet 500 printer driver finally works properly (was bugged because of a PCL incompatibility, a difference between several PCL5 printers - as usual).
- Overall speed improvements in PROforma (though font rendering is slower because of the extra work to attain high quality).

We continue the work to have some more ProWesS applications soon.

SJPD closes down

During December 1996 we heard the sad news that after years of solid service to the QL community, Steve Johnson has had to take the decision to close down the PD library service offered by SJPD. Here, we print his short letter explaining his decision, and it is quite clear that under the circumstances, we will all understand and respect his decision to close on health grounds, as he faces a major operation soon.

"Due to ill health, it is with deep regret that I must announce that as of 30th January 1997, S.J.P.D. SOFTWare will cease trading. May I take this opportunity to thank all customers of S.J.P.D. SOFTWare for their support over the past few years and may they have many years of happy QLing ahead STEVE JOHNSON"

QL Today would like to extend a big thank you to Steve for his hard work and good service over the years. His contribution im amassing what is probably the largest single source of QL software anywhere has been invaluable, and I'm absolutely sure that QL users everywhere will join us in vocal thanks to Steve, and in extending our sympathy to him for his illness and our best wishes for the future. Thank you very much indeed, Steve.

Where do we go from here? The loss of an important QL trader is bad news, obviously, especially when the reasons are as unfortunate as ill health. When I closed down DJC some time ago, a lot of good came out of that, since two new software traders came on the scene (Quo Vadis Design and QBranch). At the risk of sounding impulsive given the circumstances, I do hope (and I'm sure Steve shares my feelings here) that someone will wish to continue Steve's excellent work.

The nature of PD software means that in theory it is easy enough for another supplier to spring up to fill the gap left, though taking Steve's place may prove impossible, as he has been so hard working and dedicated to releasing all sorts of material (for example, his Text Files library of classic texts and novels on disk was probably unique on the QL scene). If anyone would like to take up the challenge and become a PD Library service to ensure such a service remains available to the QL user, QL Today would be pleased to extend any help and cooperation we can to assist with setting up such a service - do get in touch with one of us to discuss things if you are tempted by this opportunity.

Q-emulator News

Daniele Terdina reported that there is now a new and faster Q-emuLator's version for 68K Macs! Q-emuLator 3.0 is about twice as fast as the previous 68K version (1.x), thanks to a complete rewrite in machine language of the QL processor emulation core. Q-emuLator 3.0 is about twice as fast as a QL on a 33MHz 68040 Mac, but requires 8M of RAM.

There is also a new Q-emuLator Lite version available on the Q-emuLator's Web Page (http://www.geocities.com/SiliconValley/Heights/1296/q-emulator.html), slightly faster than previous Lite versions.

Style-Check goes Dutch

A version of STYLE-CHECK for the Dutch language has now been published. STYLE-CHECK NEDERLANDS contains similar features to the English language version. Details can be found in the advertisement elsewhere in this issue of QL TODAY.

JUST WORDS! have also published a HD public domain disk for Dutch language users. This contains the SUGGEST spellchecker (requires QTYP environment) with a Dutch rule file installed, dictionaries for QTYP and SPELLCHECKER conforming to the new Dutch spelling and a demonstration version of STYLE-CHECK NEDERLANDS.

Miracle Systems signs up Q-Branch

Miracle Systems has made an arrangement with Q-Branch whereby they will act as agent for the retailing of Miracle Systems products. This usefully adds hardware to their range and allows Miracle Systems to concentrate on developing much needed new products.

At the same time the prices of the Miracle Systems products have been reduced so that you can now get a

QXL2 for just £200,

ex-Quanta SUPER GOLD CARDs for £150,

recycled SUPER GOLD CARDs (when available) for £120

and recycled GOLD CARDs for just £60 each!

So Q-Branch now has the best in softwre and hardware with new prices for a new era.

TF Services launch Temperature Sensors for MINERVA MKII

These are designed to plug into the I2C interface. This I2C interface can plug into Minerva MKII or any I2C bus.

Range is -40 degrees C to +125 degrees C, and is accurate to +- 1 degree C once calibrated. The LM50 chip is interesting - it will take input voltage from 4.5V to 10V and output a regulated tempera-

ture related voltage from 100mv for -40 degrees C to 1.75V for +125 degrees C. It does this by providing an internal negative reference voltage. Most other sensors require a negative supply for temperatures less than zero.

The control IC is sealed in Hammerite paint (to protect against moisture corrosion) and fitted inside a brass tube sealed against liquids.

Up to 4 can be connected to each of the two analogue ports on TF Services Analogue interface.

Temperature sensor ... £10

4 way connector adaptor ... £10 (not needed if one sensor only connected)

Prices are for UK and exclude VAT.

News from Jochen Merz Software

First of all, the bad news about the new International Reply Coupon handling of the German Post office has turned into something positive: after lots of serious complaints by myself to the post office, I got an agreement that I can still use more than one IRC per letter, and the value per IRCs back to DM 2,- (provided I go to one post-office only, which has special instructions how to handle my letters - nice being a "special" customer). This means, everything is as usual.

Apart from lots of minor version improvements on various products (please check advertisement), MenuConfig is new: you can now load and save _INF configuration file settings, and we now have the very useful flashing "change" indicator from QD in here. As MenuConfig comes with virtually every JMS product for free, you will get it with an update of any software, or you can download it from the JMS-Mailboxes, of course.

As we think QPC is such an excellent product that everybody who hasn't seen it yet should be able to test it, we've done a demo version of the current QPC software. It will work exactly like the main version, but will not save to floppy disk or harddisk. See special ad on page 59 for details.

Last Minute News

Roy Wood of QBranch has confirmed to QL Today that following the review of Master Spy in QL Today, one of the original authors, Richard Howe, has begun work on upgrading the software, hopefully for release by the Hove workshop next year. Since Richard now uses a QXL, it is hoped that the new version will be able to take advantage of the higher resolution modes on a QXL, and perhaps on the Aurora too. The author is also looking closely at the Menu Extension to pointerise the editor's menus, which would be a significant advance.

Following heavy demand arising from the Aurora launch, Qubbesoft P/D regret that stocks of the Qubide IDE hard disk interface have run out temporarily, and because of the time of year, they are unlikely to be able to obtain new stocks of Qubide until about early February. Asking QL Today to convey his apologies to customers for this, Ron Dunnett said, "I was pleasantly surprised by the demand for Qubide following the pre--Christmas launch of the Aurora card, but unfortunately it does mean I will be out of stock of Qubides for a few weeks while another batch of the circuit boards is being made." Customers are advised to call Qubbesoft P/D to check on the stock situation before placing an order for Qubide during January. ***[In case somebody needs a Qubide urgently, call Jochen Merz Software]***

It is now definite that issue 6 of QL Today will come with a "Cover disk" - uuuuuh! We will try to put as much onto the disk as possible, but it has to be DD, to make sure every reader can handle the disk format. You will find binaries and programs of the issues 1 to 6 of the current volume, plus some goodies which we will add to fill the disk up for you.

■

Puzzler Solution

The longer deadline gave us another 3 entries, so we had 9 replies - not that much! Has it been too difficult? We don't know. The next puzzle (we'll have another one next issue) will be easier, promised.

Every entry got a random number, which was placed in a random order, and a random person had to pick a random number between 1-9. Double indexed, lots of randomness to be fair, gave us the lucky winner:

Eckhard Herrnsdorf
Malschweg 10
13593 Berlin
Germany

The Writer's Pack is on its way!

The corrections:

line 50 - remove the -1

line 80 - CODE(...) was missing

line 95 - +1 instead of +2

Small ads

Personal adverts (no trade adverts) for selling or swapping QL-related items only. Up to 50 words cost DM 10,- (£4); up to 100 words DM 20,- (£8).

SMSQ/E Errors, and what they really mean!

Dilwyn Jones

0 : no error occurred	I think I'm a PC today, I don't need an error to crash.
-1 : incomplete	The computer took a tea break! OR: PC virus failed to infect the QL! OR: Time out, user fell asleep after another late night programming session.
-2 : invalid Job ID	What the hell are you trying to do! OR: Multitasking attempted and failed disastrously.
-3 : insufficient memory	Do you think this is a good impersonation of a PC? (This is usually programmed into chips by memory suppliers to persuade you to buy more RAM, or the chip makers bribed the software writers to fill up more RAM, to sell more memory!)
-4 : value out of range	You paid too much for this software
-5 : buffer full	You can't kick me any more. OR: Too many errors happened, computer is depressed.
-6 : invalid channel ID	I refuse to send that to there. OR: You forgot to pay your TV licence. OR: You close the window AFTER writing to it, twit!
-7 : not found	Your brain is not in gear.
-8 : already exists	You already did that, idiot. OR: Re-inventing the wheel again, are we?
-9 : is in use	How many things do you really want to do at a time?
-10: end of file	No more co-operation from me, mate.
-11: medium is full	Tony Tebby added too many things to this version. OR: Too much email arrived! OR: Another good PC impersonation.
-12: invalid name	That's your lot for today. Next user please! OR: For some reason, the QL thought it was a (spit!) PC.
-13: transmission error	Another wasted phone call. OR: Time to contact Jonathan Hudson! OR: Dilwyn's PC (or Jochen's video) broke down again.
-14: format failed	Buy better disks, skinflint.
-15: invalid parameter	Why don't you become a gardener rather than a programmer?
-16: medium check failed	Since you didn't keep backups, I decided to destroy your only copy of this file. OR: Terribly sorry, please take 5 hours to re-install SMSQ-E and everything else from scratch onto your hard disk.
-17: error in expression	You swore, so I'm on strike.
-18: arithmetic overflow	Buy a bigger microprocessor, or better software. OR: You mean you're THAT rich?
-19: not implemented	Buy a later version of this software. OR: The SPACE bar is broken, press SPACE to continue. OR: Do you expect Tony Tebby to work 24 hours a day? Be patient!
-20: write protected	I'm not going to allow you to do anything today. OR: This is a master disk, I need help from the user to destroy it!
-21: invalid syntax	Brain not in gear. OR: Time to buy a new version of this program!
-22: unknown message	I hate programmers who swear. OR: Duuh!
-23: unknown error	Reserved for describing the efforts of bad programmers. OR: Sorry, we can't figure out what the heck the programmer was trying to do.
-1234567890: max error	Just to have an error number which is 1 higher than the number of error reports you get under Windows!

■

Keyboard Interface - Why and How

Robin J. A. Barker, Di-Ren

The idea to produce this keyboard interface was not mine. You can thank Dennis Briggs for it. The design criteria was simple. Use up to date technology thus keeping size and cost to a minimum. The use of relatively cheap micro controllers were the obvious design solution, components which, thanks to Amadeus Interlink, I was not unfamiliar with.

The next step was to find out how the QL keyboard worked. The basic operation proved to be straightforward. The 8049 provides 8 output and 8 input lines for keyboard operations. The output lines are strobed high one at a time and if a key, or keys are pressed, this completes a circuit back to one of the input lines.

Next, I had to decide where to place the interface, ie, under the 8049 or plugged directly into the membrane sockets. Initially, the membrane sockets were used. This proved to be a mistake. As with all Sinclair products nothing is ever that simple! Diodes fitted on the QL motherboard slowed up the signals so much that the micro controller did not have time to intercept the output signal and apply an input signal before the 8049 had given up on that particular keyrow.

At about this time, details of the projected super-Hermes started filtering through and I let the project lapse as SuperHermes promised a keyboard interface as one of its functions. Time moved on.

All of a sudden I started receiving enquiries as to when the interface would be ready. I was surprised. Very few people, I thought, knew about the project. Discussions were held and a decision to re-start the project was made primarily because it was felt that the keyboard was such an important QL item (not much good without it) that a low cost alternative to the fast disappearing membranes had to be found. If this did not happen, the probability would be a faster decreasing QL user base due to the high cost of simply maintaining QLs to a minimum standard. Not all of us are able to afford the nice little add-ons now available.

So, back to the drawing board. It became obvious the interface had to intercept the 8049 I/O lines directly. Also, because the micro controller has to fool the 8049 into thinking it is really a keyboard membrane whilst decoding keyboard inputs, it needed to be fast. Hence the 20 MHz micro controllers now in use.

Now came the problem of decoding PC keyboard output. Simple, you may well think - I certainly did. The truth didn't take too long to dawn. As with Tony Firshman and his super-Hermes, I struggled for months trying to get the thing to work. PC manuals proved not to be very useful.

In desperation, I contacted "Cherry Keyboard" manufacturers and asked for help. They very kindly forwarded me all sorts of information relating to their keyboards. I started making headway... Another problem... I found the interface did not work on all PC keyboards... back to Cherry.

They told me their keyboards were designed strictly to IBM standards, but this did not hold true for all manufacturers. Cherry then gave me a PC BIOS programming company contact (the PC's Basic Operating System is where startup code for the keyboard is held). This is where help stopped. The company declined to supply any information because, and I quote; "we have spent years perfecting our design".

Discussions with Tony Firshman revealed we both had similar problems, and I would guess, we both decided at that time to release the interfaces without wasting more time trying for 100% compatibility.

So there you have it. The interface works with most, but not all, PC keyboards. Generally speaking, it is the cheap imports that cause problems, because, and isn't this just typical, design shortcuts have been taken!

Since the interface release, only a couple of minor modifications have taken place. One being reversing the signal acceptance levels on the "keylock" facility and the others, minor timing changes.

Needless to say, the interface is not perfect. The printed circuit board it is mounted on is half normal thickness. This isn't cheaper to produce, I hasten to add. It simply lowers the overall height thus enabling most QL covers to be screwed back on. The drawback is, the board is very flexible and if any of the micro-controller connections are marginal, heat and fitting causes flexing, resulting in connection problems - the few boards affected are simply replaced by us.

We have had the odd report of lockups that seem to centre around the use of Backspace/Delete keys. As yet, we have not yet been able to pin this problem down, but to get out of the lockup state, pressing keys such as Shift, Control etc releases the lock.

The odd power supply problem has cropped up. QLs appear to have around 4.76 volts using

➪

standard power supplies (yes, I know it's supposed to be 5 volts!). The keyboard micro controller requires 4.5 volts minimum. Not a lot of room to spare! We found a couple of non-standard power supplies (in America) simply did not reach minimum startup voltage within the specified time. OK for the QL obviously, not so for the micro controller. The problem could in fact be solved by additional circuitry but because the instance is so rare, it is not worth burdening everybody with the extra cost involved.

To produce a perfect interface still requires lots of logic and PC keyboard dedicated chips, as found on previous interfaces, I can live with this!! ■

Air Fox To Eindhoven

Roy Wood

I have travelled to Eindhoven in about every way conceivable apart from rickshaw, rollerskates, junk and the Stuart Honeyball "Ripping Yarns - by Bicycle over the Andes" method, but this time was definitely one of the most memorable. At a meeting of our Sussex user group Peter Fox said, "Are you going to the next Dutch meeting ?"

When I said that I was he said he would like to go too. I immediately launched into a conversation about overnight ferries, cars etc. and he stopped me and said, "Oh no, I was to leave that going morning"

"Impossible, we wouldn't get there in time. The ferry takes two hours and..."

"Ah. I thought we'd go in my plane"

This, of course, demonstrates the value of user groups. Not only do you get advice on software and hardware but you get fun outings too!

At first it was just Peter and I who were going to be taking this route but matters got more complicated than that. I agreed to put one of Peter's QLs into a tower case and he came to my house complete with case, QL, Qplane and Gold Card. Tony Firshman provided the keyboard, super-Hermes and appropriate cables directly to my home. The postal strike was causing a few glitches at the time so Tony phoned me to ask if it had arrived and then inquired, in passing, if I was going to Eindhoven. I explained about the plane trip and he immediately wanted in.

A barter deal with Peter was arranged and then we were three. Laurence Reeves went onto the shortlist because Steve Hall, my Q Branch partner, was trying to find the time to join us. The next phone call was from Bill Richardson who wanted, well guess..., to know about my plans for Eindhoven. He was also interested in flying but we only had four seats and a limited luggage space - we were all talking about bringing as little as possible - so he decided to drive.

The original meeting time was 8.00am at Biggin Hill in Kent but that got put back to 9.00am because the airfield does not open until then. This put our arrival time back a bit what with the time difference, and made sure that Stuart Honeyball would win the bet on who would arrive first. The original "minimal baggage option" had got a bit out of hand on my part since I wound up with two computers, my normal Super Gold Card, superHermes Tower case system complete with printer, and a second Gold Card system in a flat ➪

case that I was lending to Joachim from Progs so that he could investigate why ProWesS crashed the Falkenberg Hard Disk (problem now fixed!).

And then there was the shopping! Well I did have 30 DD disks for Jochen, and a further 10 for Geoff Wicks, and a case of software, and manuals, and my bag, and my camera ..... and two large carrier bags of Tesco shopping to feed Jochen's Junk food habit. Cans of Dr. Pepper and Irn Bru ('Made in Scotland from Girders') Bags of Hula Hoops, White Chocolate Wafers etc etc. When you put all of this together with Tony and Laurences bags its a good job Peter didn't bring anything much. Its a shame you can't Zip things like you can Zip programs.

We got it all into the tiny luggage space in the rear of the plane (a light aircraft with more on board computer power than Arianne - and running SMSQ/E so it won't crash after takeoff) and somehow managed to get airborne after a bit of negotiation about flight slots and some brake problems which caused an interesting diversion.

"I know the manual says Minimum Crew=1, but does it have to be me?" (Tony Firshman)

Flying in light aircraft is really quite fun and Peter is an excellent pilot so we all felt quite relaxed zipping across the channel at 7,000 ft. Tony was reading the manual for the arcraft (just to prove that someone does read manuals) and it is a bit disconcerting that the manufacturers had to put in a statement that went "minimum crew 1".

Do they really think that some owners may try to get the plane to fly off on its own? We touched down at Eindhoven Airport at around 12.30pm crammed everything, four people and the above luggage, into one taxi and rushed off to the show.

"Ah, you got here finally", chortled Stuart, who had, of course, taken the easy route by bicycle across the Andes. I really enjoy the people at the shows. Ian Pizer came over for a chat (sorry if I was a bit blank then but I had a busy morning) and Alf Kendall, RG Wall and myself sat and discussed Flashback versus DATAdesign for a while. QBranch would like to bring out a

whole new version of Flashback and we do have someone working on it but we need the authors permission first.

After the show we went to 'the' Chinese Restaurant (see issue 2 - sorry Steve) and then to a local bar where Stuart, Laurence and Peter got involved with the locals one of which was trying to persuade Peter to fly him to see his girlfriend in New Zealand. Later, a little the worse for alcohol, we returned to the motel and sat in the bar discussing the future. There are many ideas in the pipeline and Stuart, Tony and the other traders are working hard to get new products up and running.

After that it was the traditional Eindhoven motel breakfast and a flight back to England. All in all a jolly good weekend out. The shows are more than just a marketplace as those of you who already attend will tell you. This is very often your chance to meet the traders and software authors face to face and tell them what you would like to see happening, which programs you would like to see appearing, which features could make their products better. You can also have fun reporting a bug that they had never found and watching their face drop as they think of hours of bug searching ahead (good example: Peter, Jochen and QSpread - problem fixed!)

It is also the place to have things demonstrated so you can see if youn really want to buy it. (Of course you do - buy six of them.)

See you at the next show then - by bicycle across the Andes if you have to !

■

The QL - Just dipping your toes or real Surfing?

Graham Underwood

Quite a few articles on the QL's ability to allow us access to the internet and the World Wide Web (the Web) have been published lately. The popular view seems to be, that for most types of access the QL is fine but when it comes to accessing the Web, that, to quote issue 3 of QL Today (P. 56) ; 'There is no other way than to use a PC or Mac'. Well the good news is, this is untrue! If you'd like to know how to surf the Web with your QL then read on.

What is true is that there is no Web browser for the QL. The answer to this is to use a browser that runs on your internet providers' hardware and 'translates' the Web format pages into something your QL can understand (ie. VT 100 or VT102 pages). This arrangement is known as using a 'Lynx browser' and has worked well for me, for over 3 years and allows me to to surf all I want.

OK so what can a Lynx browser do for me? Accessing the Web via a Lynx browser will allow you to see all the textual information contained on the Web pages you want and will also allow you to download any graphics content on the page(s) to view later. Most Web graphics are in GIF format and can be viewed with UnGif, a small number are in Jpeg format and would need converting to GIF with DJpeg before viewing. You can also follow all the links to other pages or call up a 'History' to go back to an earlier page. So now you can see all the text and all the graphics on the Web on the QL the only other item is forms support. Forms support is required to allow a response to be entered to a prompt on a Web page eg. entering items to search for or leaving your comments. A modern lynx browser has full forms support, in fact the Lynx forms support is probably better the all but the latest versions of the 'proper' PC browsers. One other good point of this type of access is that you can easily save everything to a log file to review later, not all 'real' browsers allow this.

OK so what can't a Lynx browser do? There are some limitations. First, the page you view won't look as the author intended it to. This is because the author will have used different fonts and font sizes when constructing the page. A Lynx browser only has one font to use but makes the best use possible of the various characteristics (bold, inverse, underline etc.) of that font. Second, you will have to use the cursor keys instead of a mouse to navigate around the pages and links. Third, you won't see the text and graphics side by side although you can view one then the other thanks to multitasking.

So how do I use a Lynx browser? First you need to find an internet provider that supports this type of access. The ones that I know of which support Lynx are limited but there must be lots of them out there;- just ask for a shell account with web access.

Navigation using Lynx is done using the cursor keys, space bar, return key and a few other keys. The usual arrangement is the 'down' means move down to next link/input item, 'space' means next (screen) page (a Web 'page' can be a few lines to many pages in length), 'enter' means activate the current link/input item. There are also a few single key commands such as 'g' - goto a new address, h - (home) return to your providers Lynx frontpage.

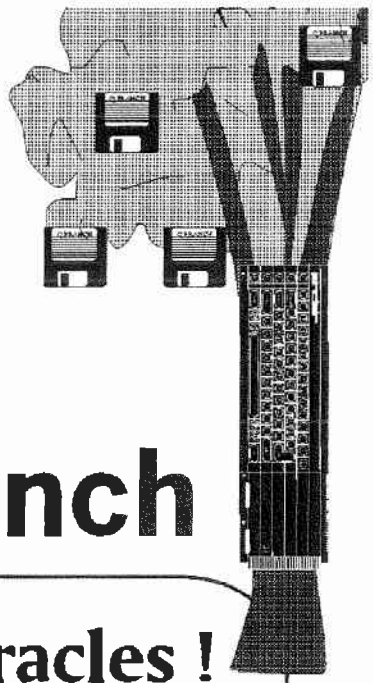
So next time you hear/see 'You can't access the Web with a QL', you'll know what to say!

■

Q Branch
Feeling out on a limb ?
Reach out for Q Branch
Suppliers of Quality QDOS / SMSQware

P.O. Box 7
Portslade
East Sussex
BN41 2ND

Tel. 01273-386030
Fax 01273-381577



News from Q Branch

Now Q Branch can do Miracles !

Q Branch have now taken over the retail of Miracle systems products and the distrubution of QL Today. We are doing this so that Stuart Honeyball can concentrate Miracle's efforts into the production of new hardware and we are going to inaugurate this new addition to our catalogue with the following,

Great Price Reductions !

QXL 2 : fast hardware emulator for the PC

£ 200.00

Second user Gold Cards £ 60.00

(subject to availability)

(Trade in values for Gold Cards £ 60.00)

(Trade in values for Super Gold Cards £ 120.00)

Don't forget we have a free catalogue which describes all of our products and a collection of demo disks including QPC, the software emulator for 486 and higher PCs, Cueshell, Linedesign, Disk Mate 5, SPY, Text 87, QSpread and the complete Geoff Wicks Collection of Lexicographers programs. There are some interesting new products being lined up for 1997 and some new versions of old favourite.

Brandnew SuperGoldCard £150

The Demo Disk Collection.

We have demo disks of many of the programs mentioned here and an informative catalogue which describes many of them in detail to help you decide if a particular program meets your needs. The disks cost £ 1.25 each + 30p P&P and the catalogue is free if you send a stamped addressed A5 envelope.

If you buy a copy of Cueshell or DM 5 from us we will include a free disk with FileInfo 2 and the Archivers Control Panel - two P.D programs from Thierry Godefroy which greatly aid the use of the file handling programs.

If you buy Easypointer we will include a free disk with the Pointer Environment Kit on it. This is a series of articles and examples in BASIC which make using EASY pointer much easier.

If you want to know more call us on the numbers above or leave us a message on the BBS (Roy Wood or Steve Hall)

Watch this space for other news and offers from Q Branch.

Q Branch

can now supply all your hardware and software needs.

Q Branch

Feeling out on a limb ?
Reach out for Q Branch
Suppliers of Quality QDOS / SMSQware

SMSQ/E

For the following systems:

Gold / Super Gold Card	£ 90.00
QXL	£ 90.00
Atari (without QJump C,D,or E level drivers)	£ 90.00
Incl. drivers	£ 112.00
Monochrome version	£ 134.00
extra versions at	£ 30.00

QPC

now available :

SMSQ/E owners	£ 95.00
non - SMSQ/E owners	£ 120.00

PROGS - ProWesS

ProWesS - windowing system	£ 50.00
PFlist (new version)	£ 14.00
PF fontpack (new price)	£ 65.00
LINEdesign - the drawing program that made this advert	£ 100.00

File Search
(new ProWesS product)
£ 14.00

EXTRAS

SERmouse	software cable and black mouse	£ 40.00
I/O toolkit	see Quanta (Sept 96) for details	£ 46.00
Mailmerge	Archive based program from ARK	£ 10.00
Mailfile	Maillist database from ARK	£ 35.00
Pheonix	File resurrection from ARK	£ 8.00

OTHER STUFF and NEWS

Books:

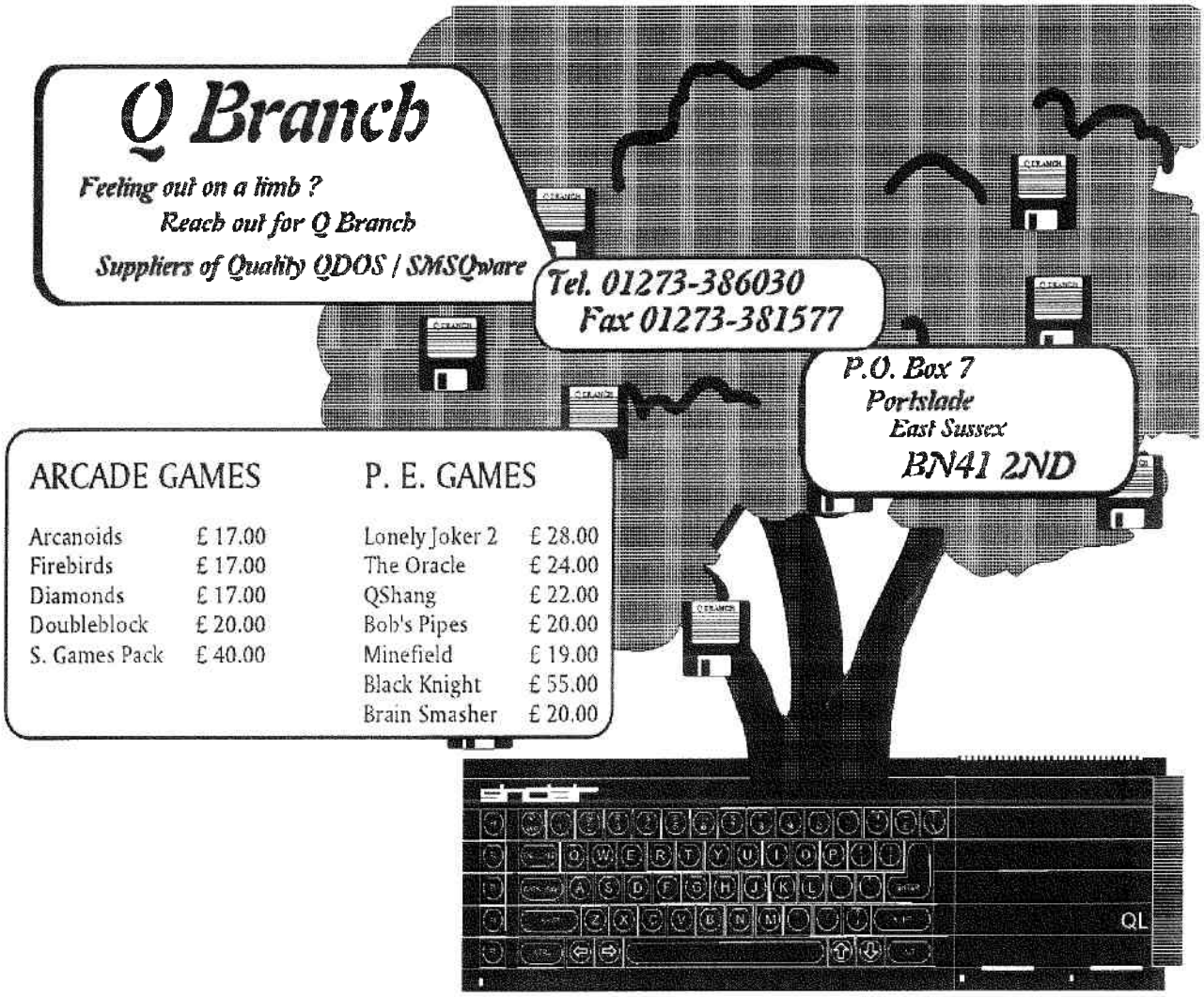
Archive Made Easy (book and disk)	£ 20.00
QDOS / SMSQ reference manual	£ 38.00

We are now stocking the BASIC LINKER program.
A new pointer driven linker for Super Basic programmers.
only £ 24.00
Also new out is the PROGS File Search program
running under ProWeSS.
This product is only £ 14.00
PFlist is also now running under ProWesS and there is a special price reduction on the PF fontpack. £ 65.00

The GEOFF WICKS COLLECTION

We stock the three programs in the Geoff Wicks collection of lexicography programs, Thesaurus, Solvit 2 and Style Checker. They are available separately at £ 15.00 each or in the following formats:

QL Words (Solvit and Thesaurus)	£ 25.00
QL Writers Pack (Thesaurus and Style Check)	£ 25.00
Lexicographers suite (All three programs)	£ 35.00



UTILITIES

FiFi - the file finder	£ 24.00
QPAC 1 - Utilities	£ 20.00
QPAC 2 - The P.E. utility	£ 40.00
QSUP	£ 36.00
QTYP 2 - Spellchecker	£ 30.00
Cueshell 2 - File Utilities	£ 40.00
Disk Mate 5 - File Utilities	£ 37.00
QSpread - spreadsheet	£ 77.00
Qlerk - Archive accounts	£ 25.00
Printed manual for above	£ 10.00
DBEasy -Archive progs	£ 18.00
DBProgs - Archive progs	£ 14.00
DATAdesign - database	£ 32.00
PFdata - better printing from DATAdesign.	£ 24.00

PROGRAMMING

QD 8 text editor	£ 58.00
QBASIC basic parser	£ 21.00
QLIBERATOR compiler	£ 50.00
QD + QBASIC	£ 75.00
QD + QBASIC + QLIB	£ 120.00
SPY text editor	£ 15.00
MASTER SPY text editor	£ 30.00
QPTR pointer toolkit	£ 42.00
EASYPTR part 1 Base	£ 40.00
EASYPTR part 2 Sbasic	£ 20.00
EASYPTR part 3 C	£ 20.00
QMake - Assembler	£ 21.00
QMenu - pointer menus	£ 20.00
QMon / JMon	£ 44.00
DISA 2 - disassembler	£ 40.00

Lies, damn lies and statistics

Tony Tebby

There are three types of lies: lies, damn lies and statistics (Benjamin Disraeli, quoted by Mark Twain)

A number of recent reports have appeared which appear to indicate that the more memory you have for slave blocks, the slower the filing system, particularly for the QPC and the QXL.

Like Mark Twain's death, these reports are greatly exaggerated.

All forms of caching have a benefit and a cost when reading data.

The benefit is that, if the data required is in the cache, then it is accessible more quickly: the larger the cache, the more likely that the data will be in the cache (cache hit).

The cost is that, if the data required is not in the cache, then the time spent looking in the cache is wasted: with a "non-associative" cache (the only type available for the filing system) the larger the cache, the more time is wasted.

Needless to say, the "benchmarks" to obtain the caching statistics were carried out in such a way as to ensure that the data was not in the cache and so there was no benefit, only the costs.

For compatibility reasons, SMSQ uses a linear cache (designed for the 100 odd slave blocks of the QL) which means that the cache search time is proportional to the size of the cache (up to 100 times as many blocks to search as in the QL with a processor only 10 times faster for this type of operation).

A typical set of results quoted for the QXL was for someone's boot load.

Memory (Mbytes)	Time to load (secs)
3	27.0
4	28,7
5	30.3
6	31.3
7	32.4
8	33.6

This showed that with a full 8 Mbytes, the loading time was increased by about 30%.

I tried loading all of my boot files (into a spare bit of heap) first of all after clearing the slave blocks with a DEL_DEFB (worst case, nothing cached) and then loading again many times (best case, everything cached in the order required).

The results were 19 seconds for the initial load and 0.38 seconds for the subsequent loads. At no time did the disk drive light on the PC flicker: all the files were cached in the PC (Smartdrive) so the "initial loading time" was for the PC to QXL transfer time only and did not include disk accesses.

With a factor of 50x in data access speed between data cached on the QXL and data cached on the PC, the QXL cache is clearly important.

- It is true that, for initial accesses, the larger the cache the slower the access (worst case).
- It is also true that, for subsequent accesses, the larger the cache, the higher the probability of a cache hit.

For the 8 Mbyte QXL, the speed cost is about 30%, while the speed benefit is up to 50 times depending of the probability of a hit.

Different types of usage of the filing system have different probabilities of hits. Caching accesses that have a low hit probability not only wastes time checking the cache but also replaces potentially useful information in the cache with useless information.

The various versions of SMSQ/E distinguish between accesses with different hit probabilities.

- The hit probability in most benchmarks is usually 0% or 100%. These are, therefore, not a very good guide to cache performance.
- The hit probability for a resident extension is 0% as they are only used once. It is a waste of time caching them.
- The hit probability for a compiler or assembler is fairly high as they are used repeatedly. Caching these can give a considerable improvement when rebuilding software. The filing system, unfortunately, cannot tell the difference between a compiler and a resident extension. The QXL (and, currently, the QPC) is the only SMSQ implementation that caches this type of access.
- The hit probability of a directory is very high. Directories are cached.

At present, the QPC follows the QXL strategy. This is clearly inappropriate as the disk access times for the QPC are at least an order of magnitude less that the QXL while the interpreted code scanning the slave blocks is much slower. The QPC cache, therefore, has higher costs and lower benefits and should use a different strategy. ■

Infocom/Inform Text Adventures on the QL

USA, Tim Swenson

In the Beginning

"It is a dark and stormy night. Lightning illuminates the room you are in ***[sounds like Miracle Systems hardware development room - Editor]***. Briefly, as the lightning flashed, you can see that you are in a large library that seems to be part of a castle. The room is full of books stacked on the shelves and everywhere else. One the table before you is a parchment scroll, a candle, and a match."

This is the start of a text adventure game. In the late 70's, Will Crowther and Don Woods created the first popular text adventure game, "Adventure."

Scott Adams picked up the idea and wrote a number of successfull adventure games for the TRS-80 computer. Sierra Games picked up the style, added some graphics, and wrote text adventures for the Apple II. "The Quill" was a system used on Spectrums to make many commercial text adventure games. It was Infocom that took the text adventure to a higher level.

Infocom developed a system that made the game in two parts, an Interpreter and a game data file. Since the user interaction part of each game was the same, Infocom created an interpreter that could be used with all of their games. The game was stored in the game file (in a "Z-Code" format) and read by the interpreter. To cover a number of different computer platforms all they had to port was the interpreter. The game data files did not have to be altered but could be used on any platform. Infocom was able to create games for MS-DOS, CP/M, Apple II, C-64, and other platforms.

The Infocom game format was so popular that people started copying it for their own purposes. Mark Howell wrote a Z-Code interpreter called "ZIP" (not to be confused with the archive utility of the same name). To create the games, Graham Nelson wrote "Inform" a compiler of Z-Code games. It uses a C-like language to write the text adventure games. Many enthusiasts of text adventure games (or "Interactive Fiction" as it was also called) have used Inform to create their own games. There is even a yearly competition for writers of Interactive Fiction.

These two utilities have been ported to many computer systems, including the QL. Luke Roberts has ported both ZIP and Inform to the QL, letting QLers both develop and play text games.

ZIP

There is not much to say about ZIP except to say that it works. The original distribution from Luke Roberts comes with two games to get you started.

```
exec zip;"curses_dat"
```

This is all it takes to start playing. From this point you have an angle backet prompt for entering your commands into the game. The games come with few instructions and you are supposed to puzzle it out for yourself. In fact, the whole idea of adventure games is to figure out the puzzle.

ZIP also comes with a few utilities to "assist" your play (read that as "cheat"). Infodump extracts information from the game data file, allowing you to see inside the game. Txd is an Inform disassembler that turns a data file into a Z-Code file. You have to know Z-Code to really use Txd.

INFORM

If you actually have the interest in developing text adventures, Inform is the system that lets you do it. Inform uses a language fairly similar to C letting you be fairly expressive about how you want the game to run. Inform compiles the source code and creates a Z-Code file that is then used by ZIP. Since Z-Code files are portable, any adventure that you create on the QL can also be used on any other platform that has ZIP. Inform comes with a fair amount of documenation and a number of source code example games. Since Inform is a language, you will have to put for some effort to really develop a game. It is powerful but trivial to learn.

Inform comes with a couple sample adventure files (_inf). The sites listed below also have a number _inf files. These can be compiled to the resulting game file or you can study them to see how the games were made.

The Games

Now we come to the key point. I've sure that there are not many QLers interested enough in text adventures to write games for other QLers. But, since the game files are portable we can use the games written for the other platorms.

I was able to find a few key sites on the Web that store Inform games. These sites are:

Snacky Pete's Text Adventure Archive *http://www.helikon.com/Personal/Pete/Advents/iflib.htm*

Inform Programming http://www.cl.cam.ac.uk/users/gdr11/inform/

Combined, there are about 30 games available. The second site has a number of example Inform

➪

files that show how various actions are done in Inform. A version of the original Adventure is available, along with: Adventureland (by Scott Adams), Paper Chase (the object is to get a college degree), Detective (using the characters from "Mystery Science Theatre 3000"), Odieus's Quest for the Magic Flingshot, Busted! ("a game of high cunning and low humor"), and others. Some games are small (43K) and other go as high as 224K. I'm assuming the larger the game file the bigger and more complex the game.

If you visit the Activision home page, they are giving away a free copy of Zork I, the most famous Infocom game. They are giving away the MS-DOS version, but you can copy the ZORK1_DAT file to the QL.

I've downloaded a few of the games (including Zork I) on these pages to make sure that they will run on the QL. Z-Code came in different versions, with version 3 and 5 being the most popular and these are supported on the QL version of ZIP. There are some games written in version 7 and 8, but these games will not run on the QL.

There are even a few e-zines that support text advetures. XYZZY News and SPAG Newsletter (Society for the Preservation of Adventure Games) are both available via the Web (use Yahoo or Lycos to find them). Both of these newsletters have fairly current issues, meaning that there are still people out there writing Inform text adventure games.

Having ZIP ported to the QL means that we can take advantage their efforts and play these games ourselves.

The Files

Both Inform and ZIP may be available on a QL BBS near you. For North American QLers, they are available on QBOX USA and from QHJ Freeware (me) at the address below. They were available on maya.dei.unipd.it, but I think it had a disk crash. You should still find them on one of the mirror sites, like ftp.nvg.unit.no.

QHJ Freeware
c/o Tim Swenson
5615 Botkins Rd,
Huber Heights,
OH 45424
swensont@mail.serve.com
http://www.serve.com/swensont/

■

Snippet's Corner – Part 2

M. Knight

This time we are providing you with a most useful and interesting routine and one that was tricky to debug. It actually took some rigorous and carefully thought out testing to get it to work and there are restrictions that can be partly lifted by compiling it (unchanged) with Turbo. There are other routines that work well in SuperBASIC or compiled and were a lot simpler to write!

The first routine is a repeat of last issue's Leading_ZERO$ and is called by the Long_INTEGER$ FuNction. It is included in case readers come in to the series part way through and need the article to provide a complete listing without having to buy back issues.

The problem the main routine helps to solve is one of presenting QL floating point numbers on the screen in a consistent format. The trouble with the presentation of big numbers is that it can get out of range of "normal" numbers quite quickly, and the QL starts using scientific notation, e.g. instead of a million being presented as 1000000 it is 1E6. This saves screen space and is informative to a scientist but sometimes it isn't what you want.

With small numbers it becomes even sillier, since for .1 we get .1 but for .01 we get 1E-2, .001 is 1E-3 etc. It would be better perhaps if the QL let us use numbers down to .001 or .0001 before it started this malarkey!

Anyway, all is well with the Long_NUMBER$ FuNction, which allows you to present any floating point number in full. In SuperBASIC (and as far as I know in SBASIC) you will get seven significant figures out of this but compile it with Turbo and you will get nine. This is because Turbo uses its own routines to convert numbers into text during coercion and printing, and Digital Precision decided when writing it to give more accuracy than the feeble seven figures normally obtained. The figures in the left window will illustrate this if you try the program with and without compiling with Turbo.

For a laugh after you have tried the test listing enter:

```
print long_number$(1e50)
```

...or (now we are getting really silly):

```
cls:print long_number$(1e600)
```

The QL can actually be regarded as storing ten figures in its floating point format but only nine are likely to be accurate if the number is not an integer in the long integer range (32 bit binary numbers). This range includes whole numbers only from -2147483648 to 2147483647. To give you all

the figures if the number fits into a long integer I wrote Long_INTEGER$ which gives all ten figures even without Turbo.

Try:

```
print long_integer$(date)
```

...from the command line a few times. There are ways to get SuperBASIC to store and manipulate ten figure integers but be careful! When typing them into a listing use strings like this:

```
SomeNumber="2147483647"
```

...NOT ordinary numbers like this:

```
SomeNumber=2147483647
```

...because when you SAVE the program the listing will have only seven of the ten figures and then when you reload that is all you will get. Calculations work as normal but you need Long_INTEGER$ to see the results; to prove this try:

```
testlong="1234567890"
print testlong,long_integer$(testlong)
testlong=testlong+1
print testlong,long_integer$(testlong)
```

OK so we have given ourselves a set of FuNctions for converting numeric variables into strings which report more figures and we can print huge or tiny numbers in full. This presents another problem; numbers like 10000000 are tricky to read unless we put separators in them, like the traditional commas or spaces every three figures. So 10,000,000 is easier to read than 10000000. This is where Comma_SEP$ comes in. Given the string to be divided, the number of decimal places in it and the character to be used to split it up (usually a comma) Comma_SEP$ returns the string with the separators inserted.

Once you have tried the test listing, enter this:

```
print comma_sep$(long_number$(1e8*rnd)
,0,",")
```

...and this:

```
print comma_sep$("10000000",0,",")
```

Listing 2.

```
100 MODE 4
110 WINDOW 252,202,256,23
120 WINDOW#2;252,202,4,23
130 WINDOW#0;504,32,4,224
140 FOR n=0 TO 2
150   INK#n;7
160   PAPER#n;0
170   BORDER#n;1,2
180   CLS#n
190 END FOR n
200 :
210 TestNumber=1
220 FOR Power=1 TO 9
230   TestNumber=TestNumber*10
240   PRINT Power,TestNumber,Long_NUMBER$(TestNumber)
250 END FOR Power
260 :
270 TestNumber=1E-8
280 FOR Power=-8 TO 10
290   TestNumber=TestNumber*10
300   TestDiff=TestNumber*RND
310   PRINT#2;Long_NUMBER$(TestDiff) TO 20;Long_NUMBER$(-TestDiff)
320 END FOR Power
330 :
340 PRINT
350 TestLong="2147483647"
360 PRINT TestLong,Long_INTEGER$(TestLong)
370 TestLong="-2147483647"
380 PRINT TestLong,Long_INTEGER$(TestLong)
390 PRINT
400 PRINT Comma_SEP$(Long_INTEGER$(ABS(TestLong)),0,",")
410 PRINT Comma_SEP$(Long_INTEGER$(ABS(TestLong)),0," ")
420 PRINT Comma_SEP$("1234567890.12345",5,",")
430 PRINT Comma_SEP$("1234567890.12345",5," ")
440 :
```

QUANTA

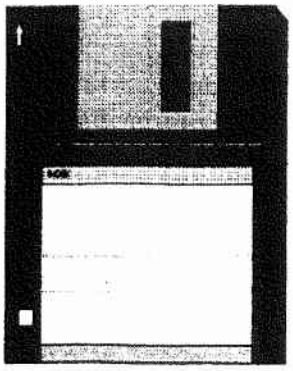
Independent QL Users Group

Worldwide Membership is by subscription only, and offers the following benefits:
Monthly Newsletter - up to 40 pages
Massive Software Library - All Free !
Free Helpline and Workshops
Regional Sub-Groups. One near you?
Advice on Software and Hardware problems
Subscription just £14 for UK members
Overseas subscription £17

Barclaycard: Visa: Access: Mastercard

Now in our FOURTEENTH successful year

Further details from the Membership Secretary



Bill Newell
213 Manor Road
Benfleet
Essex
SS7 4JD
Tel. (01268) 754407

```
30165 DEFine FuNction Leading_ZERO$(Tk_AnyNum$,Tk_Figures%,Tk_Lead$)
30170   IF LEN(Tk_AnyNum$)<Tk_Figures% THEN
30175     RETurn FILL$(Tk_Lead$,Tk_Figures%-LEN(Tk_AnyNum$))&Tk_AnyNum$
30180   ELSE
30185     RETurn Tk_AnyNum$
30190   END IF
30195 END DEFine Leading_ZERO$
30200 :
30205 DEFine FuNction Long_NUMBER$(Tk_AnyNumber)
30210   LOCal Tk_Number$(28),Tk_FirstPart$(28)
30215   LOCal Tk_SecondPart$(28),Tk_Exponent$(28)
30220   LOCal Tk_Decimal%,Tk_Exponent%
30225   LOCal Tk_Negative%,Tk_Start$(4)
30230   Tk_Number$=Tk_AnyNumber
30235   IF "E" INSTR Tk_Number$=0 THEN
30240     IF "."INSTR Tk_Number$=1 THEN RETurn "0"&Tk_Number$
30245     IF "-." INSTR Tk_Number$=1 THEN RETurn "-0"&Tk_Number$(2 TO
LEN(Tk_Number$))
30250     RETurn Tk_Number$
30255   END IF
30260   Tk_Decimal%="." INSTR Tk_Number$
30265   Tk_Exponent%="E" INSTR Tk_Number$
30270   IF Tk_Decimal%>0 THEN
30275     Tk_FirstPart$=Tk_Number$(1 TO Tk_Decimal%-1)
30280     Tk_SecondPart$=Tk_Number$(Tk_Decimal%+1 TO Tk_Exponent%-1)
30285   ELSE
30290     Tk_FirstPart$=Tk_Number$(1 TO Tk_Exponent%-1)
30295     Tk_SecondPart$=""
30300   END IF
30305   Tk_Exponent$=Tk_Number$(Tk_Exponent%+1 TO LEN(Tk_Number$))
30310   IF LEN(Tk_SecondPart$)<=Tk_Exponent$ THEN
30315     RETurn
Tk_FirstPart$&Tk_SecondPart$&FILL$("0",Tk_Exponent$-LEN(Tk_SecondPart$))
30320   END IF
30325   Tk_Negative%="-" INSTR Tk_Exponent$
30330   IF Tk_Negative%>0 THEN
30335     Tk_Exponent$=Tk_Exponent$(2 TO LEN(Tk_Exponent$))
30340     Tk_Negative%="-" INSTR Tk_FirstPart$
30345     IF Tk_Negative%>0 THEN
30350       Tk_FirstPart$=Tk_FirstPart$(2 TO LEN(Tk_FirstPart$))
30355       Tk_Start$="-0."
30360     ELSE
30365       Tk_Start$="0."
30370     END IF
30375     RETurn Tk_Start$&FILL$("0",Tk_Exponent$-1)&Tk_FirstPart$&Tk_SecondPart$
30380   END IF
30385 END DEFine Long_NUMBER$
30390 :
30395 DEFine FuNction Long_INTEGER$(Tk_AnyLong)
30400   LOCal Tk_BigBit,Tk_LittleBit
30405   LOCal Tk_Negative%,Tk_Minus$(1)
30410   IF Tk_AnyLong<1000 AND Tk_AnyLong>-1000 THEN RETurn Tk_AnyLong
30415   Tk_Negative%=0
30420   IF Tk_AnyLong<0 THEN
30425     Tk_Negative%=1
30430     Tk_AnyLong=ABS(Tk_AnyLong)
30435   END IF
30440   Tk_BigBit=INT(Tk_AnyLong/1000)
30445   Tk_LittleBit=Tk_AnyLong-(Tk_BigBit*1000)
```

```
30450   IF Tk_Negative%=0 THEN
30455     Tk_Minus$=""
30460   ELSE
30465     Tk_Minus$="-"
30470   END IF
30475   RETurn Tk_Minus$&Long_NUMBER$(Tk_BigBit)&Leading_ZERO$(Tk_LittleBit,3,"0")
30480 END DEFine Long_INTEGER$
30485 :
30490 DEFine FuNction Comma_SEP$(Tk_AnyNumber$,Tk_Decimals%,Tk_Separator$)
30495   LOCal Tk_NewNumber$(LEN(Tk_AnyNumber$)*1.4)
30500   LOCal Tk_Count:REMark could be an integer if your system allows
30505   Tk_NewNumber$=Tk_AnyNumber$
30510   FOR Tk_Count=LEN(Tk_AnyNumber$)-Tk_Decimals%-(2+(Tk_Decimals%<>0)) TO 2
STEP -3
30515     Tk_NewNumber$=Tk_NewNumber$(1 TO
Tk_Count-1)&Tk_Separator$&Tk_NewNumber$(Tk_Count TO LEN(Tk_NewNumber$))
30520   END FOR Tk_Count
30525   RETurn Tk_NewNumber$
30530 END DEFine Comma_SEP$
30535 :
```

The only minor fuss point with Comma_SEP$ is that it needs you to tell it how many decimal places the number has so it can avoid separating the decimal fraction part of a number. This is a minor problem, best overcome with some code like this:

Listing 2b.

```
100 CLS
110 FOR n=-5 TO 5
120   TestFloat=RND*10^(n*2)
130   TestFloat$=Long_NUMBER$(TestFloat)
140   Decimals="." INSTR TestFloat$
150   IF Decimals=0 THEN
160     TestFloat$=Comma_SEP$(TestFloat$,0,",")
170     PRINT TO 20-LEN(TestFloat$);TestFloat$
180   ELSE
190     TestFloat$=Comma_SEP$(TestFloat$,LEN(TestFloat$)-Decimals,",")
200     Decimals="." INSTR TestFloat$
210     PRINT TO 21-Decimals;TestFloat$
220   END IF
230 END FOR n
240 STOP
250 :
```

A point for the curious to investigate; there are a number of places in the listings where for Snippet's Corner where a string is sliced using something like:

```
30305   Tk_Exponent$=Tk_Number$(Tk_Exponent%+1 TO LEN(Tk_Number$))
```

...and this might seem odd to a number of you, after all isn't the string slicing in SuperBASIC supposed to default to sensible values? If it did then the following would be adequate:

```
30305   Tk_Exponent$=Tk_Number$(Tk_Exponent%+1 TO )
```

...but it isn't! This is because DIMensioned strings default differently and the line:

```
30215   LOCal Tk_SecondPart$(28),Tk_Exponent$(28)
```

...has the effect of making these LOCal DIMensioned strings. For compatability Turbo exhibits the same odd behaviour if the length is not specified properly, in this case using the LEN() function. If you are only going to use the code provided you should just type it in and don't worry about it, but if you are writing code of you own test carefully. Often strings can end up padded with spaces if you just use the default "TO" separator without a length.

■

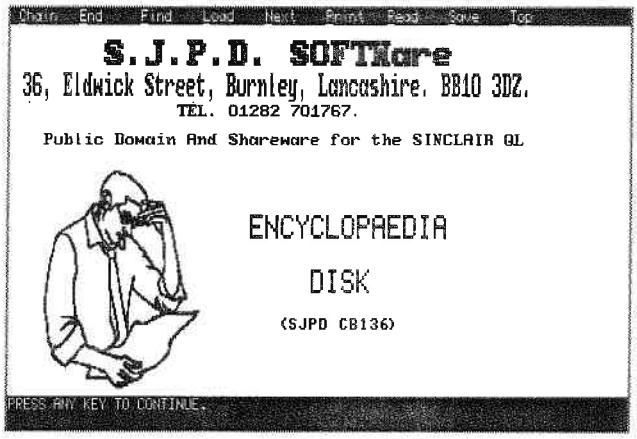
Review of Probert Encyclopaedia

Review by Henry Orlowski

Reviewed on GOLD CARD QL, MINERVA MK1, HERMES, ED DISK DRIVE

INTRODUCTION

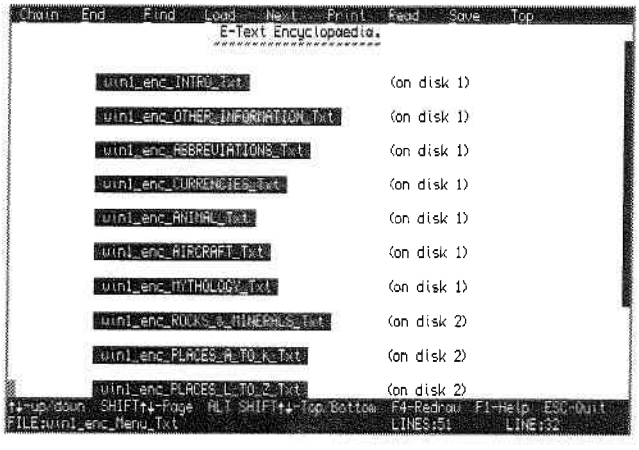
The Probert E-Text Encyclopaedia is available from SJPD as a 3 disk set on standard DD disks. A Gold Card or better is required to run the program since the individual category files that are loaded into memory are quite large, and thus the Gold Card's RAM is obligatory.



The program is public domain so that it can be copied and offered freely.

This reviewed version is the second edition and the author, Matthew Probert expects to release further editions as time permits to add further categories.

Of course in its present form it represents a far from exhaustive compendium of human knowledge in every possible subject matter. After all you would need many more than 3 DD disks to fit the contents of the Encyclopaedia Britannica onto, even in compressed form. However as Probert explains in his preview, the program is designed to be complemented with further categories over time to make it continually more comprehensive and up to date. This is the QL, you know, but who knows maybe one day Britannica will be playing second fiddle.



I should also point out to those of you who are familiar with the interactive multimedia encyclopaedias out there on your PC's, like Encarta, Hutchinsons or Compton's, that this is not interactive in the sense that you can navigate through the entire compendium with a high level of choice, selection, interlinking and handholding. Nor do you get lots of pictures (yet), sound or video. What! You were expecting sound and video? But don't let that put you off because it has many merits to promote itself.

Firstly it is the only, I think, general knowledge compendium available for the QL, which has to be a worthwhile occurence. Secondly it is dynamic in the sense that further 'knowledge' will be added to it over the months and years ahead. And thirdly the QL needs it. It gives another string to the bow of the black box and helps to extend its charm even further. I'm sure that most of you out there who are still using and tinkering with their QL's will be able to appreciate the benefits of this useful addition to our repertoire. However if you're more into your 400MB Encarta on CD-ROM, I'm afraid you may miss out on the real character of this piece.

SUBJECTS

Rather than being a simple A-Z alphabetical listing of items with definitions and explanations, the Probert Encyclopaedia is divided up into subjects or categories, which are in fact separate and individual text files which the program loads according to your instructions one at a time. It did not seem possible to load more than one category into memory at one time. This is of course limiting but counteracted by the subdivision into broad subjects in the first place.

The following categories are currently available:

-Abbreviations
-Currencies
-Animals
-Aircraft
-Mythology
-Rocks/Minerals
-Places
-People
-Plants/animals
-Weapons
-Shakespeare
-Other information (a 4000 line plus file of other general information)

QUBBESoft P/D

Purveyors of QL Hardware & Software

Public Domain & Shareware Software

Over 80 Disk's of Public Domain & Shareware Software including Psion Xchange V3.90L, C68 'C' Compiler V4.20, QL Emulator (AMIGA) V3.23, Molecular Graphics V5.12, LineDesign 2 Demo, MicroEmacs V3.11, Page Designer 3 Demo, Climes, QFax, Ghost Script V2.61, QTPI, Hackers Handbook, etc.,

£1.00p per Disk + Postage & Packing

Stamped addressed A5 Envelope or International Reply Coupon for current Catalogue

LineDesign EZ Clip-Art Collection 1

Over 100mb of Clip-Art files on a SyQuest EZDrive Cartridge. All files will load directly into LineDesign 2. Various themes are catered for such as Food, Backgrounds, Cartoons, Music, etc Also includes over 200 PFF Fonts and Thumbnail Cat for ease of selection.

£25.00p inc Cart & Cat

Inc P&P (UK) +5% (Euro) +10% (ROW)

LineDesign HD Clip-Art Collection 1

As above but on 50 High Density Floppy Diskettes, excludes some Clip-Art due to availability of space.

£25.00p inc Disks & Thumbnail Cat

Inclusive of P&P (UK) +5% (Europe) +10% (ROW)

PD EZ Collection

Over 100mb of QL PD & Shareware Software on a SyQuest EZDrive 135 Cart. Includes all the Software in the current QUBBESoft P/D Catalogue as follows:-

Disks PD 1 to PD 14, Disks SPECIAL 1 to SPECIAL 60, C68 V4.20a 8 Disk set, Ghostscript V2.61 6 Disk set, MicroEmacs V3.11, GNU Utils, XLisp V2.1d, Star Trek Reference, Adv '93, COWO Screens, DIY Toolkit, QItaly Disks 14 to 29, LD2 Clip-Art Food 1 to Cartoons 4.

£25.00p inc Cartridge

Inclusive of P&P (UK) +5% (Europe) +10% (ROW)

PD HD Collection

As above but on 50 High Density Floppy Diskettes, excludes QItaly Disks 14 to 29 and some LD2 Clip-Art Disks.

£25.00p inc Diskettes

Inclusive of P&P (UK) +5% (Europe) +10% (ROW)

Floppy Disks 3.5in DS/DD Pre-Formatted QL (1440/1440)

£3.00p

For 10

+50p P&P (UK only)

EZ Literature

Over 100mb of Popular Books in ASCII text file format on a SyQuest EZDrive 135 Cart. Inc Viewer and files as follows:-

Sherlock Holmes, Religious & Bible, Edgar Rice Burroughs, Jules Verne, Shakespeare, H.G. Wells, Mark Twain, Robert Louis Stevenson, Classic Horror, Lewis Carroll, Hans Christian Andersen, Brothers Grimm, Jane Austen, Thomas Hardy, Lucy Maud Montgomery, Bronte Sisters and lots lots more.

£25.00p inc Cartridge

Inclusive of P&P (UK) +5% (Europe) +10% (ROW)

Floppy Disks 3.5in DS/HD Pre-Formatted QL (2880/2880)

£2.50p

For 10

+50p P&P (UK only)

QUBIDE AT/IDE Interface

Allows you to connect modern AT/IDE Hard Drives, including the EZDrive 135, to your QL. A massive amount of storage space can now be made available for your programs and files. Compatible with Super Gold Card, Gold Card, Trump Card and most memory expansion systems for the QL, also Minerva and SMSQ/E.

Now only £55.00p

Inclusive of P&P (UK) +5% (Euro) +10% (ROW)

QPLANE Powered Back Plane

QPlane is a powered back plane for the QL, primarily designed to be used with a PC Mini Tower Case and a PC PSU. QPlane has two power connectors, known as P8 & P9, which marry up with the special power connectors of the PC PSU to supply all the powere requirements for your QL and expansion units. QPlane has 3 expansion slots.

£25.00p

Inclusive of P&P (UK) +5% (Europe) +10% (ROW)

Products in Pipeline

The Aurora: The QL's Graphics Card, is a replacement for the QL's Motherboard. Introduces new Graphics allowing higher resolutions varying from 512x256 upto 1024x768 depending on type of monitor connected. Can be connected to VGA, SVGA and Multisynch Monitors as well as the normal QL Monitor. Qimi compatible mouse interface also included.

The Super Duper Gold Card: This will be the successor to the Super Gold Card. Uses Motorola Cold Fire processor which is equivalent to 68040. Different memory configurations upto 64mb using industry standard 72 pin SIMM. Bi-directional Parrallel Port. On board switch mode power supply unit which will detect input voltage and adjust output voltage accordingly.

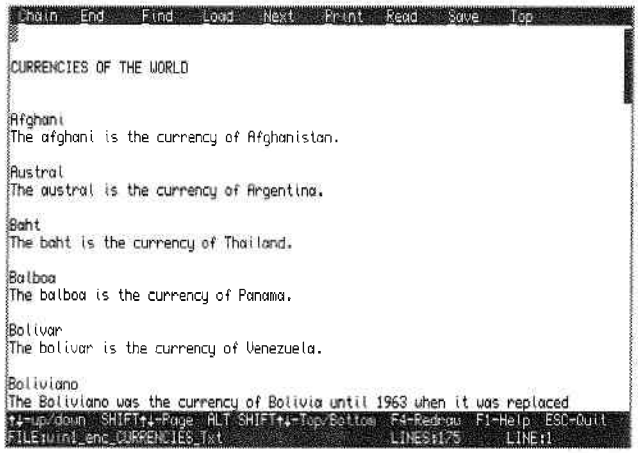
38, Brunwin Road, Rayne, Braintree, Essex. CM7 5BU. UK.

Tel: +44 (0)1376 347852 Fax: +44 (0)1376 331267

Email: QUBBESoft@aol.com

I'm sure that two of the forthcoming categories will be 'Computers' and 'The QL'.

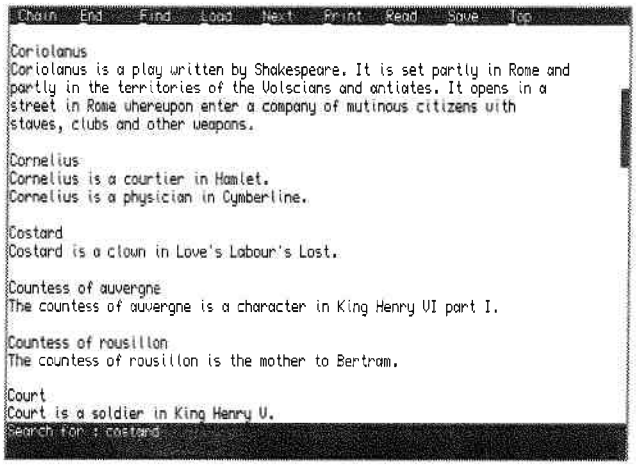
Loading any of the above categories into memory displays an alphabetical list of items in that category with a definition or explanation under each. The definitions are concise and factual, not over-detailed and with little cross-referencing. But this is a starting point and I won't winge, preferring to encourage you to find out more and concentrate on the overall impact. At the end of the day it is a matter of individual judgment and usefulness.



Don't get worried if when loading a category your disk spins around for what seems ages. Some of the files are extremely large for a QL and even with a Gold Card take time to load in. It can also sometimes seem disconcerting when even after the disk has stopped spinning, there seems to be no activity on screen. Again don't panic, it all pops up in just a few seconds.

FRONT END

Remember we said that the various categories are nothing more than individual 'large' text files. Well this is all well enough but even in the QL World there is a need for some sort of 'front end' to assist the user in moving through the program and ensuring he knows what buttons to press.



There is therefore a basic front end listing available commands and navigation options to lead you through the Main Menu and the alphabetical listings. As a matter of interest this front end or 'text file viewer' is a separate utility written by that famous QL personality, Dilwyn Jones.

Those of you who have experience of Dilwyn's offerings will not be surprised to learn that the file viewer is simple to use, purely functional, and not at all fancy. But then why should it be.

All you get are some instructions on how to navigate at the bottom of the screen, and a highlighted row of commands at the top. The first letter of the commands is underlined indicating the keypress to invoke that particular command. Nothing could be simpler.

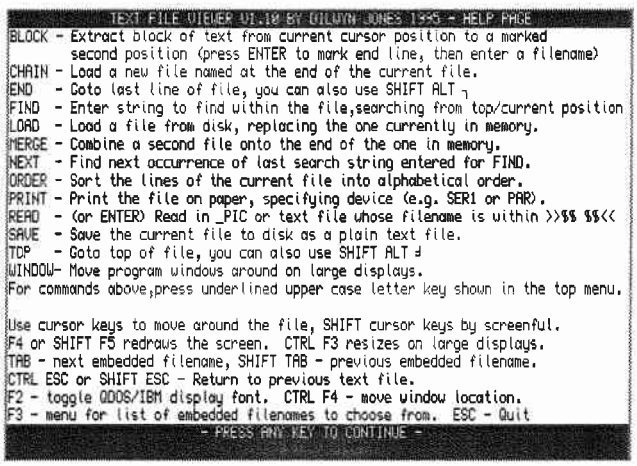
After the initial opening graphic screen, the program displays the Main Menu listing all the available categories, as detailed above. You are invited to use the cursor or TAB keys to navigate through the list in order to select the one that you want to load. Once there a simple press on the 'L' key will load it into memory. You then have the usual options of going to top or bottom, searching for text, printing out and even saving under another name. There is also a command to read in _pic files but for some reason I was unable to activate this command ***[the encyclopaedia has no PIC files, the command is simply ignored if none are available - Dilwyn].***

Getting out of the category and back into the Main Menu was a little unclear. You could either do it by loading the Main Menu text file (you had to remember what it was called), or if it was the previous file by keying in Shift ESC, or by using the Chain command, which sounds as if it should do something else(which it should have done according to the help file) but which in actual fact did nothing but return you to the Main Menu - maybe I missed something ***[CHAIN is explained in the Viewer_TXT instructions, and SHIFT ESC or CTRL ESC in the viewer means 'return to previous text file' - Dilwyn].***

INSTRUCTIONS

Whilst it is not listed as a special command keypress, pressing the F1 key brings up the Help screen which lists the instructions for use along with the other commands not listed on screen during use, like the F1 Help of course. Many of these are either obvious or self-explanatory in relation to the progress of the program, however there were some additional commands mentioned that I

could not see listed or gain access to ***[The viewer is configurable for a simplified command set, explained in the VIEWER_TXT instructions file - Dilwyn]***. These included a Merge facility to combine 2 or more files, an Order facility to assist sorting of information, and a Window command to move program windows around on large displays. Maybe the lack of a large display on my part precluded the availability of this command.



ENVISAGED CAPABILITIES

In its present QL oriented form the program is of course limited in its fact and definition comprehensiveness. It is also of course limited in its resource management facilities. Can these be overcome by any means? I believe they can be and that the author had envisaged this outcome from the outset.

Firstly, as already mentioned, there will be additional files and categories as new releases to enable the program to evolve. This will result in an improved program with a more complete knowledge bank.

Secondly, you remember that the categories are supplied as basic text files, which means that anyone can modify, supplement or edit them for the benefit of the wider community. In this way the program will grow further and become increasingly more useful.

Thirdly and as importantly, the basic text files could be used in different QL, or non-QL programs or environments, that can offer greater facilities for manipulation of the data presented.

I'm sure that in the not too distant future this will grow into a different program from the one I have presented here, being even used in some non-QL program with fantastic capabilities to manipulate the files, and make them look much prettier. Not bad for just a few quid.

Available from SJPD Public Domain Library Price £3.75 UK, £4.50 for Overseas orders.

System Requirements: GOLD CARD QL, Disk Drive. Official Name: **E-TEXT Encyclopaedia**

■

What certain people get up at shows

Dilwyn Jones

The more light hearted side of the Portishead Quanta Workshop - QL Today's editorial team sets out to lose as many friends in two pages as possible!

Best planning of the show award goes to Just Words' Geoff Wicks. Normally renowned for his attention to detail, having meticulously planned his journey home from the show to Amsterdam in just three bus-to-bus hops, Geoff saw his plans fall at the first hurdle on the way to the show from his hotel. He had forgotten it was a Sunday morning and Clevedon taxi drivers don't work on Sunday mornings... Perhaps Geoff should run his travel plans through his Style Checker program first! We hope that poor Mrs. Ashford was not too inconvenienced at that unearthly hour on a Sunday morning!

Muscle-Man-of-the-Month award goes to the Miracle Man, Stuart Honeyball. After managing to book the QL Today staff into the "best" hotel in the area, the bearded hardware retailer sought to make amends by volunteering to carry a broken-handled suitcase belonging to Cyril Phillips from the "Hole In One" restaurant the quarter of a mile back to the said "best" hotel in town. No great problem you may think, except that the suitcase

contained all of Cyril's QL gear and weighed nearly as much as Cyril himself! Undaunted, the Man from Miracle threw the suitcase on his shoulder and proceeded to march down the streets of Portishead back to the hotel faster than Cyril and company could keep up with him! It must be all that practise delivering goods to shows in rucksacks, though QLToday is pleased to be able to report that this superhuman effort did not this time involve the familiar Miracle folding bicycle...

Do you know the real reason why Jochen Merz and colleague Bernd Reinhardt like to visit Britain from time to time? Could it be to visit QL shows? Or to sell lots of QL software? Or even to try out some nice British beef? The answer to all those questions is Maybe, but now the real reason can be revealed. Crisps. Yes, on arrival this side of the channel, the first thing the dynamic duo do is... head for the nearest Tesco store to stock up on enough potato crisps to last until the next show in Britain! Now we know why Jochen has a car with a large boot - to carry hundreds of bags of crisps back to Germany! Sadly, all attempts to explain the correct pronunciation of Worcester Sauce Flavour appear to have failed, and if the telephone line sounds a little crackly the next time you call Jochen, it may not actually be the sound of the line that you are hearing! Jochen wishes to make it quite clear that the unfortunate channel tunnel fire was NOT caused by him eating his hot Tortilla crisps on the way home... And readers will be glad to hear that unlike a previous occasion on which Jochen used the Channel Tunnel, no doors fell off the trains this time!

And while speaking of food, it would appear that the Dutch people are somewhat less fortunate than the British in choice of food, as it would also seem that the first place Geoff Wicks goes to on his visits to Britain from Netherlands is Sainsburys - to buy... beans! So there you have it - if you want to make Mr Wicks happy, present him with a nice can of British beans! Would it be true to say, Geoff, that after your visits to Britain you're not so much a 'has-been' as a 'has-beans'!

Potential Radio One DJ award goes to our show reporter Henry Orlowski for his one-man performance on the microphone all day at the show. Now it would not be far from the truth to say that there were two well-known professional sound technicians (actually, some would call them unsound technicians) at the show (naming no names, but one is Welsh and the other has long hair) who debated at times if a far greater than usual voltage should not be applied to the microphone during Henry's marathon performances. Needless to say, Henry was not made aware of views about his microphone technique until QL Today had secured the show report from him...

Best 'working' model of the show was by young Ben Firshman, whose LEGO models connected to father Tony's interfaces far outshone his father's work!

Worst programming effort of the show is credited to the Welsh contingent of the QL Today editorial team. An effort at writing a QL Today screen saver program using some rather disastrous code proved more than a little embarrassing when it was realised that the SBASIC code boiled down to this little gem of a program:

```
SBASIC
OPEN #0,'scr'
INPUT #0,a$        <- from a SCR channel???
```

Would you buy a program written by this man...? It has to be said that this was not his only disaster at the show. Despite managing to leave his often-insulted PC in an unlocked hotel room, he returned later that night to find that, much to his disappointment, it was still there!

Best memory award goes to Roy Wood of QBranch (yes, bets are still being taken on the length of his hair, though he claimed to have had a hair cut shortly before the show). In a valiant marketing attempt, Roy turned up at the show, only to find his entire set of demo programs were still on the kitchen table at home. And if anyone else with a memory to match Roy's is wondering where his/her monitor went, QBranch seem to have one more monitor on return from the show than they did going to the show, but it is not theirs... Contact QBranch to arrange its return if you can prove it's yours!

Near miss of the show award goes to ace German programmer Bernd Reinhardt. At the "best" hotel in town, he decided to go to look for a telephone, but only managed to nearly turn a table full of beer all over Jochen Merz. Good job his hands are better with the keyboard than his legs with pub tables! Probably all the crisps they'd been eating, or those trips to find a McDonald's...

Pub-hunting award of the show went to Di-Ren's Robin Barker and friends, who completed a fruitless tour of Portishead and Clevedon looking for a meal at lunchtime, only to return to find food being served at the back of the hall...

During a half hour talk in the stage area, much of which was spent rubbishing PCs like my own disaster area of a machine, what was I asked to write? A Windoze style program manager front end for QPAC2! Aargh, I'm off to lie down in a darkened room for a while....

■

All set for 'C'

Jonathan Hudson

A beginner's guide to c68 ...

I'm told that some readers would like a series on programming in 'C'. I also know that the proprietors are not so keen on the idea. Sycophantic to the 'n'th degree, I agree with all of you !

This article cannot teach you how to program in 'C'; it can only help you getting started. Only you can teach yourself how to program in 'C'.

To learn a language you need a project, and if you're going to stick at it, it must be a real project. Some years ago I worked in Japan for a while and determined to learn Japanese; unfortunately my Japanese friends desire to learn English was stronger and I never got very far. Their incentive was much stronger; I could get by in English, I was only there for nine months. Their life long career prospects would be improved by speaking English and some lessons from this gaijin would help. There was no contest.

So why bother

Some of the reasons for trying to learn 'C' might be:

- 'C' is a fashionable language.
- You want to write a new program that would be difficult in BASIC (for perhaps performance reasons or you need to access complex data structures).
- It may enhance your career prospects.
- You want to port a 'C' program from another environment to the QL.
- 'C' and the c68 system makes it easy to maintain complex software projects. c68 supports modular development and integrates tools such as make and rcs that help you manage large projects in a professional, quality controlled manner.
- You'd like your programs to run on more than one platform.

The last item I find particularly attractive; QDOS is no longer my main operating system, but because it boasts an extremely competent and attractive compiler in c68, I'm able to develop, maintain and enhance programs in a portable manner. Moderately complex software such as qfax (a fax system) and qvm (voice mail) exist for both QDOS and Linux (Unix); without c68 there would not be QDOS versions.

What do you need

- Time. Lots of it.
- Patience. Again, lots of it. You'll make silly mistakes (I still do, some ten years after my first faltering efforts with QL and Lattice 'C'). To begin with the error messages will appear gibberish but this is a pain barrier you have to get through.

  In the first few weeks, you may feel that learning Japanese would be the easier option.
- A good book. Computer books are expensive, but there are no half measures here. 'C' is an evolving language; I recently looked up the the book I started with, 'C' at a Glance. Unfortunately, this book, while an excellent beginners tome, does not cover the latest ANSI standard (as supported by c68 and all other modern compilers), but only the older 'K & R' style. The example programs would now throw up a lot of warnings that may confuse a novice. If you're serious about 'C', bite the bullet and buy a modern book.
- A suitable computer. c68 is a svelte compiler by modern standards, but using it on a basic QL system (68008, Trump card, DD disks), will be frustrating --- you can just do it, but you won't enjoy it. A Gold Card or equivalent system (68000, 2Mb, HD/ED/win) is really the minimum comfortable configuration. A hard disk is strongly recommended.

  You can also run c68 on an Intel system (DOS, Windows, OS/2, Linux) in its xtc68 guise, as a cross-compiler. In this mode, the compiler runs under a native (Intel) operating system but produces QDOS programs. If you have a fairly basic QDOS system but a more powerful Intel machine, then this may be an alternative route for developing QDOS software. I'd recommend that you start with a QDOS version; xtc68 assumes that you know how to use the native version.
- A modem. This might seem irrelevant to writing 'C' programs, but when you get stuck with a problem that makes you feel like throwing your QL out of the window, this will save you. Post your query to the Fidonet sinclair_c echo (or the Internet maus.sys.ql.c68-int newsgroup) and you'll find someone willing to help. You'll find many of the well known QDOS 'C' programmers here, as well as the c68 system maintainers. The only stupid question is the one that is not asked.
- A good text editor. c68 is distributed with the freeware QED text editor. You might wish to try QDOS version of MicroEmacs which provides specific modes for 'C' programming that can make 'C' editing much easier (for example it can ensure your brackets match, and help indent your code neatly).

How to obtain c68

c68 is available from a number of sources, including:

- The Internet. Point a WWW browser at Dave Walker's (the c68 maintainer) home page (http://ourworld.compuserve.com/homepages /DaveWalker). This will have links to sites where the last complete release is held. Follow these links and download the software. Dave's home page may also contain the latest beta software. Don't download this --- this is for c68 beta-testers.
- The BBS System. A complete c68 release can be found on most QDOS BBS. I'd recommend you try Nene Valley BBS; the most recent release will always be here.
- The "Public Domain" libraries. SJPD and Qubbesoft usually carry a recent c68 release. QUANTA members can obtain c68 from the QUANTA 'C' librarian. If you're a member of QUANTA, you'll know who that is.

If you obtain c68 from an electronic source, the files will have been 'packed' using the ZIP program; you will need an UNZIP program to unpack the files. ZIP and UNZIP are available from BBS and 'PD' libraries (these programs are, of course, compiled with c68).

The current full (as I write this [mid-September 1996]) release of c68 is v4.21a, and the relevant ZIP files are (taken from the Nene Valley file listing):

Name	Date	Size	Description
421arun1.zip	26/03/96	254k	C68 4.21a - Main compiler programs
421arun2.zip	26/03/96	208k	C68 4.21a - Linker and Libraries
421arun3.zip	26/03/96	316k	C68 4.21a - Boot files and utilities
421adoc1.zip	26/03/96	255k	C68 4.21a - Basic documentation
421adoc2.zip	26/03/96	153k	C68 4.21a - Library documentation
c68may12.zip	24/05/96	66k	C68 binary - fixes problem with compile time initialisation of bit fields
libc421b.zip	07/05/96	64k	C68 LIBCA v4.21b - minor bug fixes relative to 4.21a
421asrc1_zip	26/03/96	675k	C68 4.21a - Source for main programs
421asrc2_zip	26/03/96	617k	C68 4.21a - Source for LIBCA library

The first group of files are the essential must have core.

The second group fix some minor bugs in the 4.21a release, these are recommended and will replace a couple of files from the first group, but you can start without them.

The documentation kit is essential, unfortunately it's in Quill format. I've converted this to ASCII text so I can browse and search the manuals (particularly the library documentation) from within an Emacs session. The documentation is comprehensive and detailed, however it does not attempt to teach you to program in 'C'.

The final group is the source code to the compiler and libraries. A beginner would not need these files.

Setting Up

c68 expects to find its files in three distinct areas.

1. Program files. The program files should be placed in your PROG_USE directory, or in a place where they can be found by a PATH extension such as Phil Borman's PTH driver.

2. Include files. 'C' relies on a number of header files that conventionally have an _h suffix. c68 expects to find these file in a directory called INCLUDE_ immediately below the PROG_USE directory.

3. Library files. 'C' programs must be linked with the standard 'C' library (known as libc_a), and, optionally, some user defined libraries. c68 expects to find these file in a directory called LIB_ immediately below the PROG_USE directory.

You should extract the binary (program) files from 421arun1.zip to your PROG_USE directory. The include files are also in this archive and are already prefixed INCLUDE_. The second runtime archive contains a few more executable programs and the library files; the are already prefixed LIB_.

First time users may wish to view the archive contents using the unzip -v option before extracting them.

Program components

c68 supplies the following executable programs.

1. CC. This program is the compiler driver. It will automatically run other components of the c68 system as required to compile and link your program.

2. CPP. This program is the 'C' preprocessor. Its purpose is to resolve macro (text) references in your program and include the contents of any include (_h) files, either system files from your INCLUDE_ directory, or user defined include files. We'll briefly discuss these later.

3. C68. The main compiler phase. This takes the output from CPP and produces an assembler file.

4. AS68. The c68 assembler. This takes the assembler output from C68 and produces an object code (machine code) file. You cannot yet run this file, as it will reference c68 library and startup functions.

5. LD. The c68 linker. This 'links' the object file(s) produced by AS68 with the supplied startup code and libraries located in your LIB directory. The output from LD will be your program.

6. touch, make, slb. These programs are beyond the scope of this article.

7. C68Menu. A menu driven front end to the c68 system. I have no experience of this program; it is intended to make it easier for beginners to use c68.

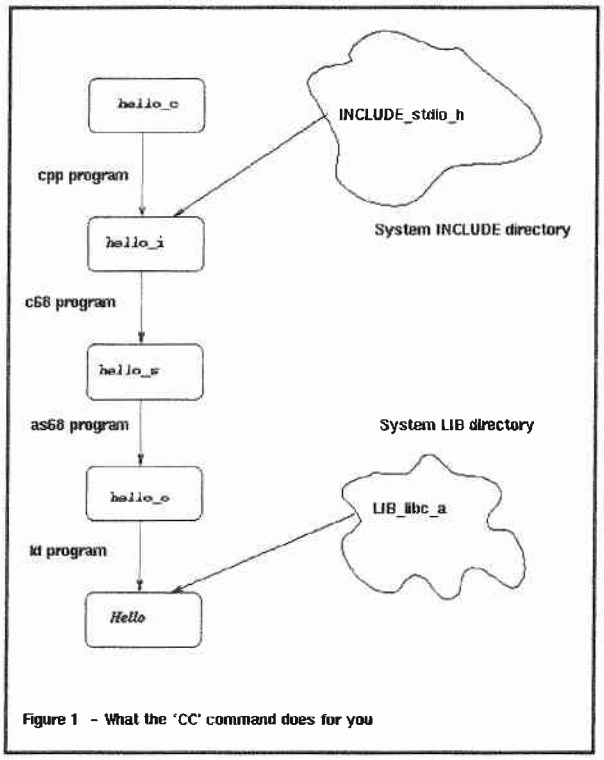


Figure 1 - What the 'CC' command does for you

You should not need to worry about these phases, they are all managed by the CC program. If we assume a source 'C' file called hello_c, containing the canonical beginner's program.

```
#include ‹stdio.h›

int main(int argc, char **argv)
{
    puts("Hello World");
    return 0;
}
```

then a CC command:

```
ex cc;"-o hello hello_c"
```

will produce a program hello which we can run as exec hello. Not very exciting! Figure one shows the work the CC program is doing on your behalf.

Components of a C program

Let's examine the parts of our novice 'C' program.

```
1 #include ‹stdio.h›

2 int main(int argc, char **argv)
  {
3     puts("Hello World");
4     return 0;
  }
```

Note I've added the line numbers; they are not part of the program.

1. This line includes the system header file stdio_h. The angle brackets tell the compiler that the file is located in the system INCLUDE_ directory. If we had instead used quote marks: `#include "myfile.h"` then the file myfileh would be included from your current (DATA_ USE) directory. Note also that c68 will accept either SMS/QDOS style header file definitions (myfile_h) or rest of the world file definitions (myfile.h). The advantage of using the worldwide "/." notation is that it is portable and you can more easily port your program to a different operating system.

2. Every 'C' program has a function called main which is where the program starts. Conventionally, the main function returns an int (integer) value and allows you to pass parameters to your program via the argc and argv variables. Your 'C' book will explain how these work.

3. puts is a 'C' function (supplied in the 'C' runtime library, libc_a), that outputs a single text string. We included the header file stdio.h because that defines the parameter format for puts(). c68 would have issued a warning if we had not defined ("prototyped") the function before we used it.

4. As main is a function, it should return a value. SMS/QDOS programs should return either zero or a negative SMS/QDOS error code.

Where do I go from here

You now know all you need to use c68 on an SMS/QDOS system.

You cannot learn 'C' from a one (or a series of) magazine articles. This article should just contain enough information to get you started, the rest is up to you. It may not be easy; there is quite a conceptual gap between BASIC and 'C'. Think of a good project, so you have an incentive to succeed. Go to a book shop or your local library and find a good text book. Purchase is a better option; it will take you longer than most libraries will allow you to borrow the book.

Ensure you get a modern book, it should deal with ANSI 'C' (the latest standard) and should be generic (i.e. not tied to a particular operating system). If all the books you find are tied to particular operating systems, then a book based around UNIX is likely to be more useful than one based on any other system. Avoid at all costs anything that is based around a proprietary compiler (e.g. Visual C/C++) or programming for a windowing system (Windows etc); these will be too specific for your purposes. c68 displays an exceptional degree of UNIX compatibility, a generic UNIX biased book will ensure you can compile and run the example programs. The ANSI edition of the "Kernigan and Richie, The C Programming Language" is the definitive resource.

Do not be discouraged; a simple mistake in a 'C' program can "cascade" a large number of error messages; fix the first one and the rest may go away. ***R***ead ***T***he ***F***ine ***M***anuals; the c68 error messages are, (like many other compilers), rather cryptic --- until you know what they mean! The error and warning messages are all documented in the c68_doc file issued in the documentation archive.

Endeavour to write programs that do not cause compiler warnings. The warnings issued by the compiler are for good reasons; if your ignore them you may jeopardise the run time integrity of your program (i.e it may crash or corrupt the system). Remember, on a simple operating system like SMS/QDOS, without virtual machine protection, one erroneous program can corrupt another program or the whole system.

If all else fails, don't be afraid to ask. Frame your question sensibly and give all the information necessary to find the problem. Just asking "Why do I get this error message" may not get a sensible answer unless you include the code fragment that causes the problem. The generic and compatible nature of c68 means that you can take many (non-QDOS specific) programming problems to a knowledgeable friend or colleague, even if they program on a different operating system.

Use the Bulletin Board Systems and the Internet

— the experts you need to help can be found there. While many of them are quite incapable of finding a stamp and a post box in less that a fortnight, an electronic query will get an almost instantaneous answer. Be bold --- we all had to start somewhere and the friendly nature of the SMS/QDOS community means that help will be at hand.

c68 is an excellent compiler: it works well and it's free. The book stalls are full of books on 'C' programming. The only obstacle faces you in the mirror. You might even enjoy the experience.

References:

Denning, Adam: 'C' at a glance. Chapman Hall/Metheun Paperback. ISBN 0-412-27140-0. Good beginners text, but does not cover modern ANSI 'C'.

Kernigan and Richie: The C Programming Language Prentice Hall, 2nd ed. 1988, ISBN: 0-13-110362-8. The essential 'C' programmers bible by the designers of the language. This edition is updated to the ANSI standard. A MUST HAVE for any 'C' programmer. It is not perhaps a beginners book.

The answers to the exercises can be found in "C Answer Book" by Tondo and Gimpel and published by Prentice Hall (ISBN: 0-13-109653-2).

Nene Valley Bulletin Board, system operator Phil Borman, tel: +44 (0)1933-460538, FidoNet: 2:2503/402. Files may be 'FREQed' by Fidonet nodes and points.

UK PD Library. Contact Steve Johnson, +44 (0)1282-701767.

UK PD Library. Contact Ron Dunnett, +44 (0)1376-347852.

■

Defrag or Destroy

Tony Tebby

A number of reports have been arriving on Jochen Merz's desk suggesting that there is something odd about the structure of the QXL.WIN file used by the QXL.

The evidence: this file can be destroyed by the "defrag" program supplied by Microsoft.

There is however, nothing odd about the QXL.WIN file.

- It is created by the standard MSDOS create file call.
- It is filled (to make it a fixed size) using the standard MSDOS write file record call.
- Data is read and written using the standard MSDOS read and write file record calls.

No operations are ever carried out at the block, directory or FAT levels of the filing system. Scandisk (called automatically before any defrag) and chkdsk do not (cannot) find anything unusual about this file because there is nothing unusual about this file. The file is, however, large and the extension is WIN which might be special for some Microsoft software (I recently carried out a global edit of faxes and letterheads to add another digit to the front of my telephone numbers. Unfortunately Word 7, which runs under WIN95, discovered that there was a 95 in my fax number and it moved the 95 to the front of the number - thank you Microsoft).

The problem possibly lies in the particular versions of MSDOS or Windows or Stacker or Hyperdrive or Doublespace or Doubledisk or Smartdrive or . . . . used on the particular machines where this problem has occurred.

One thing is certain. If Scandisk cannot find any faults before defrag destroys the file, then your version of either scandisk or defrag must be faulty. If this happens to you, then you should report the fault to Microsoft who will, of course, supply you with a corrected version of scandisk or defrag within a few days.

As you will naturally be making regular backups of all the files on your hard disk regularly, an alternative is to use the old mainframe technique. After backup, delete all your files and restore them in a logical order with the most used "read only" or fixed size files first and the dynamic files last. This is faster than defrag and the disk performance will be much better.

Another suggestion is to mark the QXL.WIN file as a system file before defrag to prevent it being moved. You can reset the file to non-system again afterwards. An even better idea would be to mark all your files as system before defrag: that way defrag will not move any of them and you can be sure that they will be safe.

■

WCs

Tony Firshman

WCs?

W = Wetzlar (the last station on the journey to the German QL meeting in October 1996)

C = Cleeberg - where we stayed

S = Solms where the QL meeting was held

I started from Martins Heron, and the train had the usual track depositing WCs which I didn't use. (nil report)

At Waterloo, Stuart (Honeyball) 'repaired' his bicycle and broke a Sturmey Archer gear change chain. 'I will get another' I said - and returned in triumph with a 3 speed link. The 3 Sturmey Archer speed is standard so said the bicycle shop and Stuart and me - what a bit of luck. Fitted in a rush - "I will adjust it at Brussels" said Stuart. He rushed to 'spend a penny' and wash hands in WC (Cost 20p. Excellent and clean)

Arrived on Eurostar. Stuart visited WC again. Automatic one stop basin. Hand under and no water. What is that? Ah, liquid soap. Arghhh, air. Ahhah, there is the water, but the air filled the WC with bubbles. (cost nil. Blue flush and especially clean! Needs three hands to open door. Large number of points)

Brussels. We have an hour to eat. Found a ***very*** smelly restaurant. Had 300BF - got a brown absolutely awful lump of something (Boulette). (Toilets worse.... nil point - in an Eddie Waring accent). Adjust Stuart's new 'standard' gear linkage to find it didn't work! Managed to get 1.5 gears working (:-(# (see later)

Got on the Moscow bound train in Polish carriages - must wake up at Köln. WCs unusual, with large engineer's diagram of the water supply - might prove useful (Clean)

Train from Köln to Wetzlar full of depressed Köln football supporters (Köln won 3:1 - I am glad they didn't lose). Train stopped every two minutes, and managed to arrive at a station during both my visits to WC. (clean but must be quick)

Arrived in Wetzlar at 20:27. Continuous steep never ending hill up from station (The countryside is flat said our friends on the train), and Stuart only had third gear. Managed to get 2nd occasionally!

ETA at Hotel in Cleeberg (20km away!) rapidly became about 01:00. Ah well we would sleep in a barn, or ***maybe*** someone would get up for us. Arrived to find a packed bar, and we had a superb soup, bread, salad, meats and plenty of beer at 1:30am. Civilisation.....

Breakfast at 8:30 - so we would have 6 hours sleep. Got up at 8am, and went down at 8:30 for breakfast. All locked up. Sleepy guy wanders down after us at 8:35 and opens up - not too efficient we thought. Start breakfast at 8:45 so not too far behind schedule but Nasta and company didn't arrive until 9am. Why are you so late? 'Why are you so early' came the reply. Well how were we to remember the clocks change - after all we were eating and drinking at 2am and nothing seemed to happen!

Great meeting at Solms - electronic proximity sensor auto urinal flush system (maximum points for absolutely pointless WC technology).

Nasta, Drazen and myself go to the car park to leave for dinner. 'Follow us' we are told. We leave the car park, and all is deserted. Where are we going - dunno? Wasn't it a brewery restaurant? Where though - nothing in Solms. Raunfels is the nearest village. There is a brewery restaurant and everyone was there except Stuart and Reinhardt who had left to look for us.

Felix (Reinhardt Heim's son) adopted me and took me to the 'Damen'! (nil report because I didn't go in). Had great fun learning German from this bright 4 year old. Nice and easy because he pointed to each object when speaking and used only nouns. German Mum spoke with a perfect Yorkshire accent (see 'tea' later).

Entertained by Reinhardt after dinner at his home. Plenty of use of WC as he provided a superb quantity of beer and Yorkshire tea. They visit Yorkshire twice a year to buy antiques.

Stuart woke up at 6am by broken WC in the hotel - it wouldn't stop flushing (no points)

Returned to Brussels the way we came. Superb fast service to Aachen. Warm water in the WCs (maximum points). The ticket collector (stupid man) looked at our German ticket, and missed the Belgian section, so told us we had to change at Aachen. This was confirmed by the Germans in the carriage. Ignore him they said - this train goes to Brussels. At Aachen, we sat back as all left the train. Ah - a nice peaceful journey to Brussels. We only have 5 minutes to connect to Eurostar - hope we aren't late. 5 minutes later all is still quiet - the train is empty and the board says Köln. We get off. 'Streiche' says the sign. 'Belgium is not working' says a passer by. We get on a bus bound for Brussels and Ostend - Belgian railways are on strike. The WC is locked, but the driver gives me a key, narrowly avoiding the imminent roadworks. Electric flush and no water to wash hands (2 points for effort and technology)

Arrive at Brussels to find an executive double decker luxury coach bound for Lille. Great - but it won't go until it is full. Over an hour later it left, and I have an urgent call of nature on the motorway. 'We do not have a key for the WC'. We

pass three motorway WCs (minus three points). Baby is having nappy changed - won't cause an international incident by asking to borrow one.

Disembodied voice thinks we are in flight, and announces at least two languages that we will arrive at Lille in a few minutes. Great - WCs. Why didn't they say on the bus 'queue at gate E', and stop everyone rushing around joining queues to find that out. Go through passport control through ticket control and into waiting area. Can wait no longer as I see WC arrows - rush round corner 'OUT OF ORDER'.

Desperate by now, I go back to ticket control to look for staff WCs. NONE. Get physically attacked by an official on returning. Struggle with this strange person with 'Douane' stamped on him, as he digs his nails into my wrists, shakes me and stops my sign language - I eventually free one hand and point to a certain hidden object now in considerable pain (not my wrist). 'I want to go to the toilet' I bellow. 'I don't speak English' it replies. As Stuart established later, a free translation of this is 'I am a Customs Official. This is my country. I speak perfect English but you must speak French'. I am not only now very angry, but I am in double agony - wrists and privates! I must not hit this man.

```
10 FOR j%=1 TO 10:PRINT "I am right but I will miss the last train" :PAUSE 10
```

I break free at last - with some help from other customs officials also appalled. I stagger back (away I am told from the closed circuit TV) only to be followed by the monster who throws me a number of times very hard against the walls.

Stuart carries on the argument verbally - Miracle will never return.

Break into the 'out of order' WC - and they were very out of order, but I use them at last (ungradeable).

Leave Lille on Eurostar and life slowly returns to normal. Entire train seems to have seen the incident. 'Did you find the toilet' 'Have a glass of wine'. Even the train staff knew the story before I reported to them. 'We have been expecting this from customs - they are very strange'. Many apologies from Sarah, the train 'manager'. Many hilarious interruptions from her radio transmitter.

Arrive at Waterloo (very thematic name me thinks) - 5 minutes to catch last train. Sign said 'ASCOT - change for Cardiff Central' - must be somewhere near Aldershot)

Get LARGE cup of coffee and warm bacon/egg baguette and collapse into train. Odd - these are not the usual carriages. (455 late night sliding door trains for security).

It was a very large cup of coffee.

NO WCs. ■

Bugs 'n Fixes

Jochen Merz

Problem: When I use the button frame extension listed in QL Today Issue 2, then the buttons created will not be picked when I want to pick the whole button frame.

Solution: The presence of a small window in the button frame (called button) does not necessarily mean that jobs like BUTTON_PICK (to be found in QPAC 2) will pick them. BUTTON_PICK, for example, will only pick jobs which are represented by a window in the button frame (of course!) and with a priority of 1 or 126. If your button is not picked, try setting the priority to very low or very high:

```
SPJOB -1,1: REMark very low
SPJOB -1,126:REMark very high
```

Problem: When I try to save a screen image to a file using a HOTKEY, nothing happens as expected. As soon as I use SCR_BASE to detect the base address of the screen, a window opens up destroying the image, e.g.

```
ERT HOT_THING('d','SBASIC';'SBYTES
ram1_dump,scr_base,32768')
```

Solution: You better write a short program which you assign to a HOTKEY, e.g.

```
ERT HOT_THING('d','SBASIC';'LRUN win1_
dump_bas')
```

with WIN_DUMP_BAS being the following short listing:

```
100 OPEN#1,con_0x0a0x0
110 SBYTES_O ram1_dump_scr,SCR_BASE(#1)
,SCR_YLIM(#1)*SCR_LLEN(#1)
120 BEEP 100,100:QUIT
```

All the SCR_ Functions require an open CON channel, and if this does not exist, it will open a small #0 for you and use it instead! The calculation of the size is much more flexible, it will work on all screen sizes, not just the standard QL screen.

Question: Why can the QPC screen not be made to occupy the full width of the monitor when set to 512x256?

Answer: There is no equivalent mode available on PC graphics card, therefore a slightly larger resolution (640x350) has to be used to "emulate" the lower resolution. In theory, QPC could scale some of the pixels to make use of the full size, but this would look ugly (most QL pixels would be represented by 1, some by 2, some by 3 or 4 pixels on the screen) and it would be slow.

Question: The text in the QPC manuals regarding harddisks seems to relate only to use with a QXL ... and there is a problem understanding the QXL.WIN file.

Answer: The QXL and QPC treat their "harddisk partitions" in exactly the same way, so that you can use the same WIN1_ or WIN2_ ... from QPC and QXL. We thought this would be a very good idea. If you want to have two separate sets of "harddisks" for QXL and QPC, simply configure QPC's SMSQ/E and call the files "C:\QPC.WIN" or whatever you like!

Dilwyn Jones:

Question: I have written a basic program which uses Oliver Fink's BasConfig extensions to implement a Config block. Unfortunately, although it runs on most systems, strange things happen in Functions when SMSQ is used, including QPC. RETurn statements in the Functions throw up an error "RETurn not in procedure or function", if called within the program when run in SBASIC, yet the function can be called without error as a direct command.

Answer: Some of the functions in the first version of BasConfig contain an error in returning function values from the C_xxxx extensions. This causes spurious bytes or words to be left on the RI stack, thus SBASIC gets a little confused as the program runs after it has encountered the C_xxxx extensions. The simple solution is to recompile the config block using a later revision of Basconfig, e.g. the ones by Norman Dunbar and Dilwyn Jones, where the stack bug has been fixed.

Question: When printing from Quill using a printer driver normally configured for SER1, to a parallel port using SMSQE/QPC by entering _PAR in response to the Print? ...to printer query, it asks if you wish to overwrite the parallel port. Pressing Y to delete it makes it print OK and seems to cause no harm, but is a little annoying. Presumably, Quill thinks that _PAR is a file and so tries to overwrite it, but why?

Answer: Does anybody know? If so, please let us know the solution!

Ralf Reköndt wrote a useful tip:

If for any reason we wish to be able to run a copy of an EPROM in RAM (e.g. we have a peripheral plugged into the EPROM slot, or our system simply does not include an accessible eprom port), here is one way of doing this if we do not have the EPROM_LOAD command of SMSQ/E for example. It does not work with all roms, since some need to be run at the 48k address of the eprom slot of the QL, some write all over themselves (presumably as copy protection) and a few need to copy themselves and relocate from the 48k address to the new address in memory!

First, to save a copy of the eprom plugged into the slot at the back of the QL. This saves a 16 kilobyte block of code:

```
SBYTES FLP1_ROM_IMAGE,49152,16384
```

Next, this short program loads and installs the eprom image into ram:

```
10 base = RESPR(16384)
20 LBYTES flp1_ROM_IMAGE,base
30 CALL base + PEEK_W(base+6) : REMark
do not "CALL base" !
40 CLEAR
50 DLINE TO
```

HELP REQUESTS from Reginald Gilbert

Question 1: I have a (slow) Tandy 1100FD portable computer, as well as my Gold Card QL (much faster!). But when I switch on or reset the Tandy, it is ready to go in less than 4 seconds, whereas the QL takes 20 seconds. Much of the delay is due to the lengthy process of testing memory, which I have chosen to turn off in the Tandy. Can anyone suggest a way to turn off the memory test - and so reduce the delay on startups or reset?

Answer: I don't know of any easy possibility to skip the RAM check - however, what are 20 seconds if you consider the extra safety? I hardly ever reset my machine 'cause I have a complex BOOT file which sets up everything for me for the whole day, so this is no problem at all.

Question 2: I have an Apple Imagewriter printer which (although only 9 pin) produces respectable-looking text output from the QL. It does this by printing each line three times, advancing the paper by a few thousandths of an inch between each scan. But if I print out a graph from Easel, the results can only be described as barely adequate. It should be possible to improve on the appearance (though not the accuracy) by a program which looks at pixels around the one being printed, and using the "microadvance" to reduce the "jaggies". Does anyone know of such a program?

Question 3: I presume that if I were to purchase a 300 dpi printer, the printout of Easel would be essentially the same as with a 9 pin dot matrix printer? Or am I wrong on this?

Answer: If you use the same printer driver, it will be slightly better. If you use screen dump programs like LDUMP, you will get much better printouts.

Question 4: If I were to purchase a QXL, and use it with a high definition PC screen driver (or any other of the several ways by which you can obtain, say, 640x480 screen) would the Easel graph be the same as one the standard QL, or would it appear smoother? And again, would the printed output be improved or not? And what about the Aurora card, when it is available, are there programs which can be tailored to the high definition world - it would seem that there must be. Any information would be of interest to me and I am sure to many others.

Answer: Even with higher screen resolutions Easel would still use only 512x256 pixels. It would not give better printouts in any way. A better, pointer-driven Easel replacement would be appreciated by many users, I'm sure.

A way to transfer between Abacus Spreadsheets

R.R.Taylor

If Abacus spreadsheets are used extensively for accounts one will wish at some time to move a patch of work from one spreadsheet to another. The facilities available are EXPORT and MERGE and both have problems. Probably all of us have tried these with occasional success, but generally frustration, and have abandoned. The following elementary approach may seem a little long-winded, but with experience it reduces to a few steps, and it does succeed.

The Problem

MERGE always loses your text, and EXPORT usually ruins your numbers. Further, whatever you do, your calculations - the formulae - are lost. Export does work of course, but only provided your account fits the rules. In the normal run of accounts there are column spaces, rows without text, not always text at the beginning of a row, sub-totalling, text in more than one column etc, all of which offend the rules.

Brief note of what these facilities do do

Refer to the QL User Guide if you wish for fuller description of the way they function. The descriptions seem OK, but do not sink in easily.

Export and Import Must have text label in the first cell of each required row or col. Only if the next and other cells in the row or col are numbers, does it do the numeric values of the numbers. If the next cell is text or empty it does all as text. If mixed, it does all as text, including the numbers. It positions them in relation to the cursor position.

Merge Does numbers only, without calculations, no text. It positions them in relation to main grid - Cell A1 if you like.

SOLUTION: use EXPORT for TEXT, and MERGE for NUMBERS.

First check the destination spreadsheet has the area clear and corresponding to the source column arrangement. Note top left cell identity - where you will have the cursor when importing.

Then load the source spreadsheet. While in working memory, prepare the area required as follows: Ensure the required area is self-contained - Do something appropriate about any data derived from other areas. Delete all areas not required. Adjust position if necessary to suit the destination spreadsheet. Save it for MERGING. If you save it as temp, the file will be temp_aba.

Now, to continue: Delete all numbers (values) within area required. Best to use Rub. Export can of course be either in rows or columns. Assume in rows. Must have text in left hand column as label to identify the line of data exported. It seems to work happily with the one alpha digit echoed down all rows. However if you prefer positive (unique) labelling the following is a quick way: Let us assume we are starting from row1. Label the column as follows: Start with capital alphabet, in row1 enter chr(64+row()) Echo from row2 to row26. After Z continue with small, in row27 enter chr(70+row()) Echo from row28 to row52. After z continue with misc characters enter chr(76+row()) Echo from row53 to row100. EXPORT required area, by row. If you export as temp, the file will be temp_exp.

Load the destination spreadsheet. IMPORT temp by row at required cursor position. Imports text from temp_exp. MERGE temp, adding. Merges relative to the main grid. Merges numbers from temp_aba. Check alignment is correct. Rub unwanted labels. Reinstate any calculations.

Calculations

We are left with the problem of the lost formulae - to which there is no really good answer. However the following aide memoire dodge may help. It is of course possible to make Abacus tell you about the formulae. But you have then to work out what it means, which is far from easy!

Accounting needs are always changing, and one of the great advantages of using a spreadsheet such as Abacus rather than a tailored package is that you can readily adjust to suit changes. After such a change you need to be able to check everything remains functioning and coherent - accounting standard maintained.

This is an elementary means of providing a hidden note which does not interfere with normal use of the spreadsheet. Text in a cell may of course spill across cells to its right. However, any use of the next cell hides the remaining text. The idea is simply to place a text note of the formula in the cell to the left of the one th which the actual formula applies. By starting the note with a symbol, say an exclamation mark, and inserting some spaces the symbol is all that need appear - becomes a flag telling you to look. An exclamation mark blends particularly well among vertical column marks. The note of the formula can of course be read by placing the cursor over the exclamation mark and reading the text in the Contents box at the bottom. This provides for quick checking and security.

If a spreadsheet involves a number of small sub-accounts, it is not uncommon to have a final account in the bottom right corner in which the totals etc from those sub-accounts are automatically entered. In these circumstances it is particularly convenient to have alternate narrow columns in this final account used for hidden records so as to enable correct functioning to be easily traceable. The use of this aide memoire arrangement would of course facilitate valid reinstatment of calculations lost in the course of merging spreadsheets.

■

Beginner's Basics Part 4

Stuart Honeyball

Arrays

Continuing on from last issue's Beginner's Basics about data types we now consider arrays. An array is a collection of values all of the same type which are closely related. For example the following sets up an array of floating point values quantifying how weird the QL Today covers are:

```
100 DIM Weirdness(6)
110 REMark Max Weirdness=10
120 :
130 REMark Initialise to Don't Know
140 FOR Issue=1 TO 6
150   Weirdness(Issue)=0
160 END FOR Issue
170 :
180 Weirdness(1)=10
190 Weirdness(2)=8.5
200 Weirdness(3)=9
```

Arrays must be dimensioned before use which is what line 100 does. This DIM statement dimensions a single dimension array with 6 elements - 1 for each issue. For the programmer's use the next line is a comment to remind the programmer that the weirdness is given in marks out of 10. I have chosen a special value 0 to signify that no opinion has been formed so we start off with all values set to this. The last 3 lines set up some values.

What happens at the end of the publishing year? The array will have all 6 elements used and so there is nowhere for next volume's. This illustrates how essential it is to consider what happens when you approach limits. In this case a 2 dimensional array should have been chosen so change line 100 to:

```
100 DIM Strangeness(101,6)
```

and the initialisation loop will start off with the lines

```
140 FOR Volume=1 to 101
145   FOR Issue=1 to 6
150     Weirdness(Volume,Issue)=0
```

The rest of the program must be changed accordingly. (In case you are wondering why only

➪

101 years are allowed for it is not that I am an abject pessimist but simply because the QL clock assumes that time ends in 2097.)

Note that this new array has 606 elements. Volume and Issue are used as indices. Each index can have a value between 1 and the size of the dimension. It is also worth noting that if only single dimension arrays were available then we could have dimensioned the array Weirdness(606) and indexed into it by, say, Weirdness((Volume-1) *6+Issue).

Strings are always arrays even when they are not! This rather confusing statement needs explanation. If a string is not dimensioned then the amount of memory space it takes up depends on the length of its content at any given time whereas if a string is dimensioned then the its length can still vary but is limited and the memory taken up is fixed. Look at the following:

```
10 DIM a$(10)
20 a$="QL Today"
30 b$=a$
```

After running this both a$ and b$ will have a length of 8 yet a$ will take up enough memory space for a string of length 10 whereas b$ will take the space for length 8.

You can of course have multi-dimensional string arrays. A possible use could be to store the contents of a display window, say, perhaps:

```
DIM DisplayWindow$(20,42) : REMark
Window of 20 lines of 42 characters
```

It is worth noting that spreadsheets and databases, which are in many ways interchangeable, can have their data stored in arrays. The following program will generate a file suitable for importing into Abacus or Archive. Simply add these lines after lines 100 to 200 given near the start of this article.

```
210 :
215 CR$=CHR$(13):REMark Carriage Return
220 Ch%=FOP_NEW("Ram1_Weirdness_exp")
230 IF Ch%<0
240   PRINT "Can't open Ram1_Weirdness_
exp"
250   STOP
260 END IF
270 :
280 REMark Provide array names
290 PRINT #Ch%,'"Issue","Weirdness"'&CR
$
300 :
310 REMark Fill in contents
320 FOR Issue=1 TO 6
330   PRINT #Ch%,Issue&','&Weirdness(Is
sue)&CR$
340 END FOR Issue
350 :
360 CLOSE #Ch%
```

The resulting export file is in "Ram1_Weirdness_exp" which can be imported into either Abacus or Archive. It should be noted that array names and strings have to be enclosed in quotes. The data is constructed into records which, in this case, each record consists of the issue number followed by the contents of the corresponding array element. (If you printed out a set of arrays arranged so that each array was laid out horizontally, each starting on the left hand side and aligned, then the records would read vertically.) The elements within a record must be separated by commas and each record ends with a carriage return character followed by a line feed character.

It is unfortunate that Superbasic does not have the ability to handle records, i.e. regular arrays with more than one element type, but there is a way around this restriction and that is to use a 3-dimensional string array. The QL's ability to coerce integers and floating points into strings and back again is called upon. Supposing we wanted to have a set of 6 records each containing the number of pages of a QL Today issue and a comment about it. Firstly we must decide what the largest element size required is. In this case the number of pages will, presumably, always be able to be represented by a 3 digit number so an element size of 3 characters is suitable for this but for the comment it may be prudent to allow, say, 20 characters; so we choose 20 which is adequate for both types.

The following wil dimension a suitable array and initialise the numeric elements to 0 and the string elements to the null string:

```
100 DIM Records$(6,2,20)
110 Pages=1
120 Comment=2
130 FOR Issue=1 TO 6
140   Records$(Issue,Pages)=0
150   Records$(Issue,Comment)=""
160 END FOR Issue
```

You just treat each element as being of the type you intended it to be and let Superbasic's coercion take the strain. An individual record could be given meaningful values by:

```
Records$(3,Pages)=66
Records$(3,Comment)="Excellent read"
```

It is important to note that although the array Records$ has 3 dimensions only 2 are used for accessing it. Another way to look at it is that Records$ is a 2 dimensional string array with each element having a maximum length of 20 characters. This method can be used for tranfering data between Abacus/Archive and Superbasic.

■

The Menu Extension - Part 3

Dilwyn Jones

THE FILE HANDLING MENUS

VIEW_FILE allows us to, err, view a file. A simple one line basic program as shown in the listing below and in Figure 8 shows what it's like. This is a surprisingly effective and powerful menu, as the simple name conceals a number of useful features. Not only can you tell it which file to view, you can also make it start and/or end at a given point in a file by supplying it with strings to search for. It starts viewing from where it finds the first string and ends when it meets the second string. So when using it to view a basic program, for example, you could specify line numbers followed by spaces to view only, say, a given chunk of the program such as from "100 " to "300 ". The size of the menu can be controlled (set to 40 in the example below) and once in the menu, word wrap is available for viewing text files neatly.

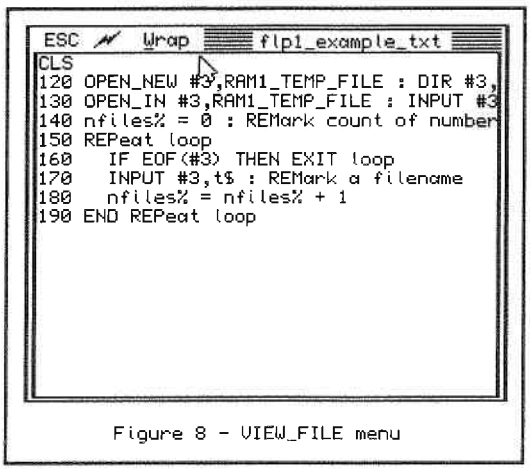


Figure 8 - VIEW_FILE menu

```
100 REMark
start viewing at word "cls", end at "close"
110 VIEW_FILE flp1_example_txt,'cls','close',
40,0,0
```

Uses for this menu range from the obvious facility to view a file, to the display of help text - simply prepare your program's help files as plain text and use the VIEW_FILE menu to display it. Scroll bars are available if there is more text than will fit in the menu.

The Directory Select menu is used to select drives and directories. Again, a simple one line menu call is all that is required to perform quite a complex task. Up to 8 subdirectories can be configured into the QMenu software by the user (perhaps your most commonly used ones) and any other can be selected by the user. If you are familiar with using the files menu in QPAC2, this concept should be fairly obvious to you. For those who do not know about directories, imagine that your floppy or hard disk is a filing cabinet, with a number of files in it. If all 400 of your files are in one long list in a random order, it might take half a day just to find the file! So, just like a filing cabinet, we create individual folders (directories) for all the files on a give subject (e.g. one folder/directory contains all your Quill _DOC files). If you have a Gold Card, Super Gold Card, or a QDOS emulator on a PC, Atari or Amiga, you will have directory facilities. Older interfaces such as Trump Card do not support them.

```
100 LET d$=DIR_SELECT$('NAME',10,,
,,)
```

Figure 9 shows what it looks like. The string 'NAME' is just a title or heading for the menu. The number 10 indicates that the menu will be 10 lines high if possible. The missing parameters are the usual menu position and colour schemes. Within the menu, drive names (except for the DEV device) and numbers can be selected with just one keypress - the names are shown and the keys to press to select them are underlined. Want to select FLP2_? Just press F for FLP and the number 2 and you're there! Directories are listed and to jump into that directory, just HIT on it and you can then select any sub-directory within it. A DO on a directory name selects it, and it is then returned as a string, e.g. WIN1_QUILL_

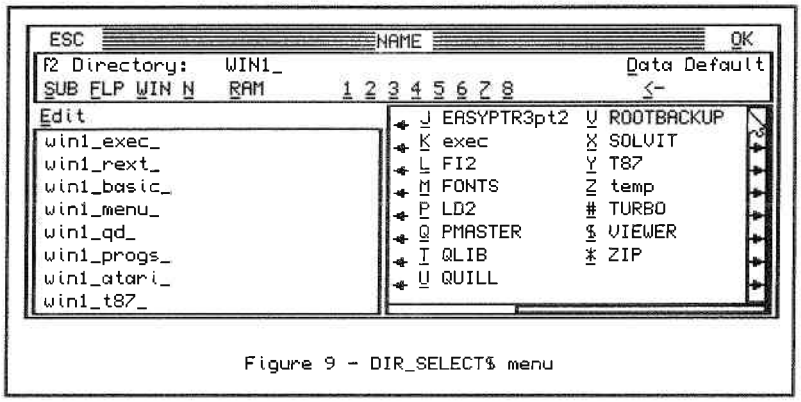


Figure 9 - DIR_SELECT$ menu

The Extension Select menu allows us to specify a filename extension (suffix) to indicate which type of file we want to use, _DOC for Quill files, _bas for basic and so on. The next one line program allows us to choose an extension. The only parameters required are the usual position and colourway which can be put in brackets after the EXT_SELECT$ if required.

```
100 LET ext$ = EXT_SELECT$
```

Figure 10 shows it in use. The extensions offered are those configured into the MENU_REXT file. There is another option available in more recent

➪

versions, namely the facility to edit the extensions within the menu. HIT the Edit command, then HIT or DO on one of the extensions. Another menu then pops up allowing you to optionally save the new information in MENU_REXT - you can press ESC not to save if required. The function returns the name of the extension specified (e.g. _bas) as a string. There is another specific option offered by 'No' in the top right corner - this means 'no specific extension' or 'all files', and the function returns an empty string in this case.

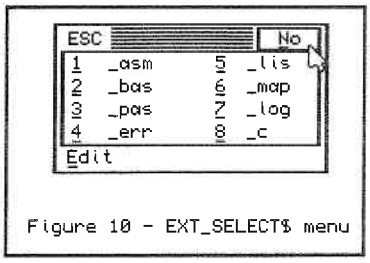


Figure 10 - EXT_SELECT$ menu

Finally for the list of menus, we come to what must be the jewel in the crown of the menu extension, the file select menu. Its purpose is straightforward - to select a filename from a list, but it conceals an absolute wealth of facilities such as directory navigation, filename extension, defaults, drives and so on. This number of facilities makes it one of the most difficult menus to handle at first, but it can be used at a simple level while you get used to it, and the more advanced facilities can be ignored until you are ready to face them.

unavailable to force the listing of all files. It is also possible to force the list of filenames to be a one column list (normally, the menu will arrange the number of columns according to the length of the filenames). If the list of files won't fit into the rather small filenames window, pan and scroll bars become available (lines of arrows). You can HIT or DO on these to make the list of filenames scroll in the direction required.

The one line listing below shows how to use this menu, but does not show all the possibilities. I think it would be unfair to Jochen Merz if this article replaced the manual completely, as he may then start to lose sales through unauthorised copying of the software. Besides, if every single facility was explained in detail, I think I could fill an entire issue of QL Today with this article alone. With the current high cost of paper, I don't think our esteemed editor would be too pleased either...

Figure 11 shows what the menu looks like. You will see that the menu almost fills the screen - hence the tip about using OUTLN with the full size of the screen earlier in the article. The height of the menu can be controlled, but not the width. So since the menu more or less fills the width of the standard QL screen, it is common for the outline for a program using QMenu's FILE_SELECT$ menu to be 512 pixels, but the height

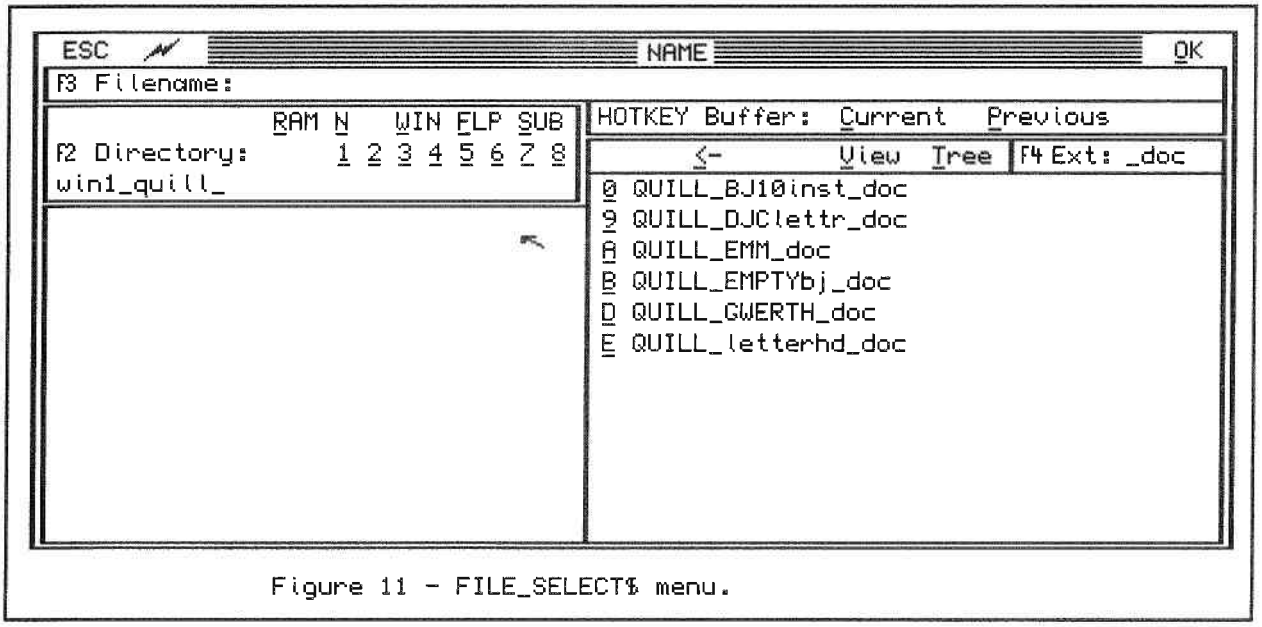


Figure 11 - FILE_SELECT$ menu.

You can supply a suggestion for the user to use or edit, a directory, a filename extension (to limit the number of files to be listed) and you can also specify the height of the menu. There are various other options such as ensuring that only the directory select item is available, or supplying the DATA_USE or PROG_USE (Toolkit 2) drive defaults, or making the filename extension facility can be set to suit the tallest menu used.

```
10 LET filename$=FILE_SELECT$('NAME',,win1_qu
ill_,_doc,20,0,0,1,1)
```

The 'NAME' is the heading for the menu. Between the next two commas I could have placed a suggestion string as well. The 'win1_quill_' is the drive and directory the menu is to start with. The '_doc' string specifies that the menu is to show

only filenames ending with '_doc' (i.e. Quill files). The 20 means that the menu is to be 20 lines high and the two 0's mean the menu is to be placed in the top left corner of the screen (or as near as possible). The two 1's are the colourways for the menu and filenames lists.

Within the menu, there are a great deal of features. This is adequately described in the manual under 'The User Side', the part of the documentation you can give away with MENU_REXT in programs. Briefly, you can specify filename extension, use the hotkey buffer, navigate through directories, view files (using a variation on the VIEW_FILE menu) and a tree facility where files in subdirectories can be shown in addition to the root directory shown. In practice, this could be used, for example, to find all the files for Quill on your hard disk (a very large number in my case!) by specifying an extension of '_doc' and drive win1_, then selecting the Tree command. Scanning the directory tree (structure) can be quite time consuming, so the menu displays another warning menu with an amusing little cup of tea sprite in it as if to say 'go and make a cup of tea while you wait for me to finish this'. In practice, it's not that bad!

The filename extension facility is actually quite neat, though not easy to remember everything that can be done with it! You can DO (or press F4) on the extensions box and a list of the preconfigured details is shown for you to choose one of those. You can edit one of them as with the EXT_SELECT$ menu, or choose no extension at all. Alternatively, if you had HIT the extension, you can then type in a new extension yourself, which need not be the same as one of the 8 in the table shown when you DO on the extension or press F4.

THE SCRAP EXTENSION

The 'Scrap' is a sort of clipboard to allow strings of data, sprites, blobs, patterns or picture area save files to be transferred between programs that recognise the Scrap utility - in practice this is likely to mean programs that themselves use the Menu Extensions. Documentation is supplied on using it from machine code and superbasic. Routines are supplied to clear the Scrap, return information about data in the Scrap area, adding and overwriting data items to the scrap and of course to read data from the Scrap area. 7 BASIC extensions to handle all this are implemented and these are allquite easy to use, provided you understand the concept of the scrap in the first place, and have some knowledge of the type of data you intend to place into the Scrap (e.g. you know about the pointer environment area save bitmaps used to handle graphics!). Provided your software makes good use of it (I know of few that do) it is quite a useful feature. Or if you write your own business software, for example, the Scrap would give you a simple way of cutting and pasting data between programs without having to use temporary files and so on.

In conclusion, the Menu Extension is an excellent introduction to programming for the Pointer Environment. It does not have as many facilities as either Easyptr or QPTR, and you certainly wouldn't think of writing a major graphics program with QMenu, for example, but for fairly general programs which need to be written quickly, this package is excellent. You will need the manual, as there are so many options and long lists of parameters to supply, you can't hope to use all the menus from memory without reference to the documentation.

Once you have mastered QMenu and want to try something at a higher level such as Easyptr or even QPTR, you will have a good grounding in the techniques, terminology and problems of writing for the Pointer Environment which will stand you in good stead later on.

A major difference between QMenu and Easyptr is that Easyptr allows you to design your own menus. With QMenu, menu designs are fixed, but are consequently easier to use.

QMenu is compatible with Easyptr and their menus can be freely mixed as long as you avoid name clashes when naming Easyptr menus.

When used in conjunction with the QLiberator compiler (regrettably, it is not possible to Turbo compile basic programs using QMenu) and a utility to allow configuration blocks to be added to a compiled basic program (e.g. Basconfig, available from Quanta and PD software libraries) some surprisingly good results can be achieved. ■

QL Service list - Part 4

Robert Klein

8 Magazines

Note: Sinclair QL World has stopped. Their last issue is volume 3, issue 5.

Note: IQLR has stopped. Their last issue is volume 5, issue 6.

TF Services

superHermes

A major hardware upgrade for the QL

- All Hermes Features (see below for list) PLUS full 19200 throughput on ser1/ser2 not affected by sounnd
- IBM AT keyboard interface (plus foreign drivers)
- HIGH SPEED RS232 industry standard two-way serial port. 4800cps throughput (supergoldcard - qtpi - zmodem) at 57600bps
- THREE low speed RS232 inputs (1200 to 30bps) Driver for SERIAL MOUSE supplied. Other uses include RTTY/graphics tablet etc
- THREE spare I/O lines (logic) with GND/+5V
- Capslock/scrollock LED connector
- Turbo/keylock connectors
- 1.5k user data permanently storeable in EEPROM

All this on a professional board about twice the size of the 8049 co-processor it replaces

Cost (including manual/software). **£90** (£92/£87/£90)
IBM AT UK layout Keyboard ..... **£22** (£24/£23/£27)
Serial mouse ..... **£11** (£13/£12/£14)
Capslock/scrollock LED ..... **£1** (£1.50/£1/£1.50)
Keyboard or mouse lead ..... £3 (£3.50/£3/£3.50)
High speed serial (ser3) lead ..... **£4** (£4.50/£4/£4.50)

Hermes available for £25 (£26/£24/£27) **(wking ser1/2 and independent input, debounced keyboard & keyclick)**

Minerva

The ORIGINAL system operating system upgrade

MINERVA RTC (MKII) + battery for 256 bytes ram. CRASHPROOF clock & I²C bus for interfacing. Can autoboot from battery backed ram. Quick start-up.

OTHER FEATURES COMMON TO ALL VERSIONS

DEBUGGED operating system/ autoboot on reset of power failure/ Multiple Basic/ faster scheduler- graphics (within 10% of lightning) - string handling/ WHEN ERROR/ 2nd screen/ TRACE/ non-English keyboard drivers/ "warm" fast reste. V1.97 with split OUTPUT baud rates (+ Hermes) & built in Multibasic.

First upgrade free. Otherwise send £3 (+£5 for manual if requd). Send SAE or two IRCs + disk.

MKI...£40 (£41/£40/£43) **MKII...£65** (£66/£63/£67)

QL REPAIRS (UK only)

Fixed price for unmodified QLs, excl microdrives. QLs tested with Thorn-EMI rig and ROM software.

£27 including 6 month guarantee

I2C INTERFACES

Connects to Minerva and any Philips I²C bus

Power Driver Interface Similar to parallel below (16 I/O logic lines) except that 12 logic lines can be used to control 8 current carrying outputs (source and sink capable)
2 amp (for 8 relays, small motors) ... **£40** (£43/£38/£44)
4 amp total (for motors etc)..... **£45** (£48/£43/£50)
Relays (Eight boxed 3 amp 12v 2-way mains relays connecting to 2 amp power driver..... **£25** (£28/£23/£27)
Parallel Interface Gives 16 input/output lines. Can be used wherever logic signals are required..... **£25** (£28/£23/£27)
Analogue Interface Gives eight 8 bit analogue to digital inputs (ADC) and two 8 bit digital to analogue outputs (DAC). Used for temperature measurements, sound sampling (to 5 KHz), x/y plotting ..... **£30** (£31.50/£29/£30)
Temp probe (-40°C to +125°C)..... **£10** (£10.50/£10/£11)
Specify whether for fitting to 4-way connector (for 4 probes) or direct to I/F
4-way connector for interface..... **£10** (£10.50/£10/£11)
Data sheets ..... **£2** (£2.50/£2/£3)
Control software & manual (for all I/F)... **£2** (£2.50/£2/£3)

QL SPARES

Keyboard membrane ..... **£12** (£12.50/£12/£13.50)
1377 PAL ..... **£3** (£3.50/£3/£4)
Circuit diagrams ..... **£3** (£3.50/£3/£4)
68008 cpu or 8049 IPC ..... **£8** (£8.50/£7.50/£9)
8301/8302 or JM ROM set..... **£10** (£10.50/£10/£11)
Serial lead..... **£10** (£11.50/£11/£12)
Power supply (sea mail overseas) .... **£12** (£17/£16/£21)
Other components (sockets etc) also available

QBBS Bulletin Board

UKs first QL scrolling bulletin board

Megabytes of files. Messages to/from UK/Belgium/Holland/USA/Italy/Germany.

Tandata users add SIX zeros (000000) or wait for 3 seconds of modem tone if dialling manually

01344-890987 (up to V32bis)

See our home page on the internet:

http://www.firshman.demon.co.uk

COMPUTER CLEANERS (UK only)

All in standard 3-pin devices and are plug-in NO WIRING REQUIRED. In their eleventh year of production - as old as the Sinclair QL

2-way adaptor..£14 **3-way adaptor.. £18**
4-way trailing socket.... £24

Prices include postage and packing (Airmail where applicable). Prices are: UK (EC,/Europe outside EC/Rest of world). Payment by cheque drawn on bank with UK address, debit card/Mastercard/Access/Eurocard/postal order or CASH! (No Eurocheques). Send SAE or IRC for full list and details

VISA

Holly Corner, Priory Road, Chavey Down, ASCOT, Berks, SL5 8RL
Tel: 01344-890986 Fax/BBS: 01344-890987
tony@firshman.demon.co.uk http://www.firshman.demon.co.uk

MasterCard

QL Today (published bimonthly)
Contact
Jochen Merz Software
(German office and publisher)
Im Stillen Winkel 12
D-47169 Duisburg
Germany
phone: +49 - 203 / 502 011
fax : +49 - 203 / 502 012
box 1: +49 - 203 / 502 013
box 2: +49 - 203 / 502 014
or
Q Branch Tel. +44 1273 386030
P.O. Box 7 Fax +44 1273 381577
East Sussex
United Kingdom BN41 2ND

IQLR (International QL Report)
(appeared every two months - address only for reference)
P.O. Box 3991
Newport
RI 02840
USA
Tel/Fax: +1 401 / 849 3805
email: iqlr@nccnet.com

QReview
(quarterly - now merged into IQLR)
c/o Bruce Nicholls
57 Shaftesbury Road
Romford
Essex RM1 2QJ
United Kingdom
phone: (01708) 755 759

QL Hacker's Journal
c/o Tim Swenson
5615 Botkins Road
Huber Heights, OH 45424
USA
(513) 233 - 2178
email: swensotc@ss1.sews.wpafb.af.mil
www: http://www.serve.com/swensont
The QL Hacker's Journal (QHJ) is published by Tim Swenson as a service to the QL Community. The QHJ is freely distributable. Past issues are available on disk, via e-mail, or via the Anon-FTP server, garbo.uwasa.fi. The QHJ is always on the look out for article submissions.

Update! magazine
P.O. box 17
Mexico, IN 46958
USA
Covers QL, Spectrum, TS 2068, ZX81 and Z88.

Also there is a disc-based QL newsletter that has been running for over 6 years now. Anyone interested should send a blank formatted 3 1/2" disc + a padded bag and if possible return postage to Mike Kenneally (see previous issue of QL Today).
■

HTML - New Readers Click Here

Roy Wood

When Joachim from PROGS was visiting me in January for the Hove workshop he gave me an alpha copy of the latest version of DATAdesign (v 4) which is about to be released. Since I had helped to revise the LINEdesign manual and had been using DATAdesign for a very long time he asked me if I would write the manual for the new version. Writing a manual for a program, even one that you know well, is no easy task and I think that everyone should try this at least once. They may then understand how hard it is to put the instructions into an easily understandable form. In my experience the American phrase "One man's easy is another man's 'Huh?' " fits the bill admirably. When I agreed to do accept the task he added as a postscript, "Ah good, but you have to write it in HTML format". Hmm !

What is this HTML Thing anyway?

Many of you, especially those who have read some of the hyperbole that has been appearing about the Internet, will have seen a few mentions of HTML already but for those of you who are unfamiliar with the term I will explain.

HTML stands for Hyper Text Markup Language and is most commonly found on the Internet, on bulletin boards and World Wide Web 'home' pages. In addition to that the help files for Windows (wash my mouth out !!) are in a similar format. If you have used Jochen Merz's QD from version 6 onwards or have received one of the S.J.P.D. disk catalogues recently you will have seen a kind of Hyper Text in action.

In QD you can call up help on a specific Superbasic command by placing the cursor over the word and then pressing F1 or the right mouse key. A small box pops up and gives you the information that you require if it is available. The S.J.P.D. catalogue uses Dilwyn Jones' Viewer which allows you to place the cursor over specific sections of the text and then press 'Enter' to

display a '_pic' file. Neither of these two programs, however use the formalised markup language that is common on the Internet.

If you have purchased a copy of the ProWesS package from PROGS you will also have seen HTML in action since the package includes an HTML Reader (figure one) and has all of its manuals and documents in this format.

In brief the concept of HTML is that the page you are viewing on the screen will have a numbers of links set into it displayed as underscored words. When you place the cursor over these words and press enter you are then presented with the section of the current document (or another document) that the link has been set up for. This gives you the equivalent of an index built into the text that you are reading andmakes following the text very easy.

Ah, But....

There are, of course, drawbacks to this. The PROGS Reader has, in its top left corner a button marked 'BACK'. This will take you back to the previous document if you have loaded another one but not back to the previous link. This makes retracing your steps very difficult. I enquired about this only to find that this was the established convention for HTML readers. Fortunately SMSQ/QDOS users have never been ones to follow the general conventions when there is a better route to take and I set Joachim the task of making this kind of step retracing possible in the PROGS reader.

PROGS plan to make all of the manuals for the next generation of their programs available as HTML documents and the printed manuals will then be optional extras. Although ProWesS will not be necessary for the new DATAdesign the option exists in it for the user to call up the manual on the ProWesS reader instead of the more usual help file.

The advantage to the user of this approach is that the programs will cost less without the added price of printed manuals and, when an update is required, the file can be updated much easily and cheaply (more ecologically too - no old manuals to throw away!). The ProWesS reader has the facility to print documents so a printed manual will be within the reach of most users at the press of a button. In addition to this the font and fontsize used by the ProWesS reader can be changed to accomodate the user's choice and the final manual will be individually customised. Of course this also makes the pirating of software easier so it is a good job that most QL'ers are such an honest bunch.

Another drawback with this method of producing a manual is that it is impossible to produce a normal index even though the printout from the Reader gives numbered pages. The reason for this is obvious because, when you change the fontsize you immediately change the number of lines on the page and therefore the place at which the item you are trying to index will be wrong.

OK so how can I write an HTML File?

Well the first thing that you need is a text editor or word processor that can save a document in ASCII format (ie - no control codes). Most word processors can do this (even Quill!) but I prefer QD because it is quick, easy to use, and has a whole host of facilities that make it ideal for the task. In the case of the DATAdesign manual PROGS gave me a copy of the old manual in the format that they use to print their normal manuals and this contains a lot of codes that must first be removed from the text. Unlike normal control codes these are in normal text format so I had todo some extensive search and replace to get the text into a form where I could start work.

HTML works by placing a number of tags into the text that the Reader uses to detemine the way in which the text looks on the screen and where the individual links will lead. Tags are made up of the '<' sign at the leading edge of the tag followed by the tag contents and a '>' sign at the trailing edge. If, for instance, you want to put a header onto a section you have a choice of six different types and styles:

H1 Bold, very-large font, centered. One or two blank lines above and below.

H2 Bold, large font, flush-left. One or two blank lines above and below.

H3 Italic, large font, slightly indented from the left margin. One or two blank lines above and below.

H4 Bold, normal font, indented more than H3. One blank line above and below.

H5 Italic, normal font, indented as H4. One blank line above.

H6 Bold, indented same as normal text, more than H5. One blank line above.

(The above text is quoted directly from the ProWesS HTML document.)

This means that should you wish to place a section heading you would need to type: <H1> "Section Heading" </H1>. The first tag (<H1>) turns on the heading and the last tag (</H1>) turns it off again and allows the text to revert to its previous format. Forgetting the second tag, as I found out to my confusion, gives some very strange results. Most HTML readers will ignore any tags that they do not understand so if you forget to turn off a heading, for instance, or

mistype the tag to turn it off, the HTML reader will continue the Heading until it reaches the next 'turn off' tag.

Jumping About

Most word processors can accomplish the kind of text formatting that HTML does and, if you have a WYSIWYG type program, ('What You See Is What You Get' - The closest the QL comes to that is Text 87) the screen display will be in the format that you have set up.

HTML really becomes useful when you wish to reference one item to another. In order to do this you need two special tags, a 'name tag' and a 'reference tag' and these are written in this manner:

Name Tag:

<A NAME='Section'>Section Name</A>

Reference Tag:

<A HREF='#Section'>Tag name</A>

Taking these apart will give you the following items:

Name Tag.

<A This tells the Reader that what follows is a location tag.

NAME This tells the Reader that this is a named section.

='Section'> This is where you have to insert the name you have chosen for this particular tag.

Section Name This is for the name that will appear onscreen as the title of the section.

</A> This turns off the 'name tag'

Most HTML commands can be 'nested' so if you wish the title of the section to appear in the first type of header then you would type the tag thus: *<H1><A NAME='Section'>Section Name</A></H1>*.

Reference Tag.

<A This tells the Reader that what follows is a location.

HREF=' This tells the Reader that this is a reference to a named section.

#Section'> The word that follows the '#' symbol must be the name of the section you wish to jump to (n).

Tag Name This is for the word or words that will appear underlined in the text to provide the link.

/A> This turns off the 'reference tag'.

This will work if the section to be referenced is in the same file as the one that contains the tag.

There is a further command that can be added should you wish this section to be included into any printout of the file and that is REV=ToC. The final form would be:

<H1><A HREF='#Section' REV=ToC>Section Name</A></H1>.

The text in figure two is written in the editor in this way:

<P> This is a Reference tag in the 'H2' format:

<H2> <A HREF="#Section1">Section</A> </H2>

This is a header in the 'H1' format:

<H1> <A NAME="Section1">Section </A> </H1>

The reference tag will take you to the name tag when clicked on.

</P>

If this section is in another you will have to tell the reader the name of that file and this is where the operation gets a little more complex. The reference that you have to give is from the directory that the current file is in.

For example, on my computer as I write the DATAdesign manual the first file that you load is `WIN1_PWS_DOC_DATAdesign_head_html` and the other files that are relevant to it are: `WIN1_PWS_DOC_DATAdesign_Appendices_html`, `WIN1_PWS_DOC_DATADesign_Manual_html`, `WIN1_PWS_DOC_DATADesign_Gloss_html` `WIN1_PWS_DOC_DATAdesign_Utlis_html`, `WIN1_PWS_DOC_DATAdesign_Index_html`

In order to refer to a section called 'Engine' in the 'Manual' file from the 'Head' file I would have to write the reference tag as follows:

<A HREF="DATAdesign_Manual_html#Engine'> DATAdesign Engine </A>.

I do not need the 'WIN1_PWS_DOC_' section of the file name because that is the same subdirectory as the 'Head' file. The ProWesS Reader is very sensitive to subdirectories, so much so that my normal sloppy way of not starting a subdirectory until I have a few files with the same prefix caused me a lot of head scratching. Since my QL has an old Falkenberg hard diskinterface I have been used to working this way (the Qubide insists that you make the directory and then copy the files into it and will not make the subdirectory if files with that prefix already exist) and when I noticed that I had six files in the 'WIN1_PWS_DOC_' subdirectory that had a 'DATAdesign_' prefix I shuffled them off into a separate subdirectory. This totally confused the reader and it could no longer follow the tags. This is not really a fault with the reader but is just the way that the program accesses the file tags. In creating a 'WIN1_PWS_DOC_ DATADESIGN_' subdirectory I sent the reader

looking for 'WIN1_PWS_DOC_DATADESIGN_DATADESIGN_' which it could not, of course, find.

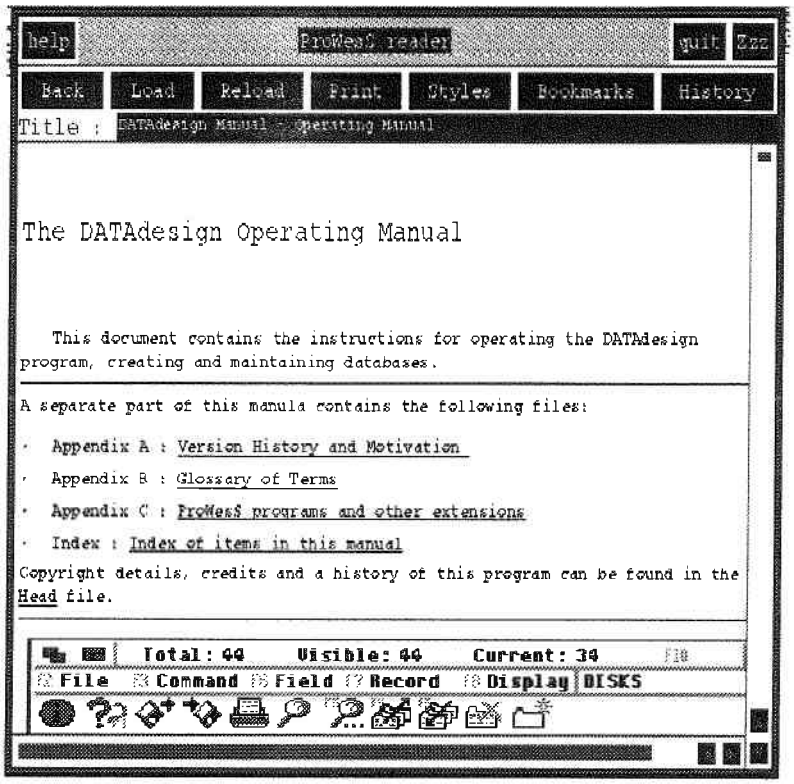
Other HTML Commands

The most complex part about writing HTML documents is the tags between the sections - everything else is relatively straightforward. I will not go into a long explanation about the other HTML commands because the documentation provided by ProWesS and available from the bulletin boards and Public Domain suppliers is very comprehensive and understandable.

One thing that does need a mention, however, is the way in which these documents handle non ASCII characters. All of the normal characters can be inserted directly from the keyboard but the character set that extends beyond the standard ASCII format needs special handling and these are called 'entities' by HTML. This character set includes characters such as the sign for 'less than' ('<'), the sign for 'plus or minus'(±) and all of the accented characters used by non-english languages. Because the 'less than' sign is used to denote a tag and is not displayed by HTML readers any inclusion of it as its normal meaning must be done by means of an entity thus '<'.

There is a whole list of 'entities' and the format that must be used to display then provided with the ProWesS package and a similar list can be found in any of the Public Domain Libraries under HTML documentation. This list is, however, not as complete as I would like it to be and I suspect that there are more undocumented ones around (PROGS quoted the above entity for the less than sign although I could not find it in the list).

HTML documents also need a similar format in order to display accented characters and these can also be found in the list.



Hints and Tips

I wrote the DATAdesign manual using QD 8 because it had excellent cut and paste and search facilities and because it was able to access the scrap extensions. I also used the QXL-driven PC for this purpose because the larger screen size (VGA) meant I could use another QD screen running at the bottom and still have a useable screen size for editing. This second QD screen was used to keep a list of tags, separate from the one that I was using to write the documents. The advantage of this was that whenever I needed a tag for a particular section I was able to move up to that list and send the section to scrap. I could then return to my main document and insert the tag from the scrap knowing that it would be consistent with all of the others.

I also wrote a short compiled Basic program which I called the 'HTML Machine' which I used to insert all of the 'tags' and 'entities' directly onto the screen. For this I used Jochen's excellent QMENU extension creating three separate lists, the first one consisted of the command tags, the second one held all the common symbol entities and the last one all of the accented characters. By the time you read this you should be able to get a copy of the program from the P.D. libraries, bulletin boards or by sending a disk and stamped addressed envelope to QBranch. One of the advantages of using this to write the document is that a lot of the tags are produced in pairs, ie. a start and end tag. You can then write the text directly between the tags and, since you already have the end tag there is less likelihood of an error.

There is a possibility that Jochen may be able to build a tag recognising facility into the next QD in the same way as it recognises assembler labels and Basic Functions and Procedures. That would be very useful.

In The Picture

When I began writing this PROGS reader did not have the ability to display graphics but the latest version of the reader is able to do this. For the present time at least the type of pictures available are limited to standard screen dumps but these can be sized and presented in the text with the tag command *<IMG SRC="filename">*. This is the basic form of the tag although the parameters can be extended to give the height and width in either pixels (the default) or 'en' values which are multiples of the current fontsize. (One 'en' is half the current fontsize). The change from pixel to en values is achieved by placing the words *'UNITS=EN'* after the filename but within the brackets.

If you therefore wish to place a picture on the page and give it a height of 200 units of the fontsize the tag would read *<IMG SRC="filename" UNITS=EN HEIGHT=200>*.

If no width is given then the picture is displayed in thescreen ratio of a standard QL. There is a further, and even more useful, unit which can be used in this area and that is Column Width (abbreviated to CW - unsurpringly). This means that you can tell the reader to display the picture in a ratio of the width of the column that is currently being used. This last unit was a great relief to me because, when I wrote the DATAdesign Manual, I had sized all of the pictures for my QXL driven laptop. At the time PROGS had not found the bug in the Falkenberg Hard disk interface that is on my main QL so I could not load ProWesS. Later, when the bug had been found and coded around I ran the manual on the QL and got pictures in Cinemascope. Because the CW unit is scaled to the column width it is machine independent and therefore much more user friendly.

Since this article took a little time to make it onto the printed page I have had the opportunity to do a couple of re-writes and to make sure that the information is a little more up to date than the first draft that I produced. At the time of submitting this, PROGS were expecting to receive information from the Italian QL software house ERGON about the format of GIF and TIF pictures and to incorporate these into both the reader and as LINEdesign drivers.

Placing pictures into the reader gives it an added dimension although it does slow the loading and scrolling time somewhat. When the Aurora card makes its appearance and the QL has access to larger resolutions the appearance of the finished HTML document will be better on a standard QL.

Many people think that the Aurora motherboard will make the QL a better platform for entry onto the much vaunted Internet. There are a lot of hurdles that have to be overcome before this can happen and most of those lie firmly in the hands of the software writers. All Internet activity is memory intensive and our meagre 4Meg of RAM on the Super Gold Card and slow processor (by Internet standards) are also effective bars to full participation in these areas but the HTML format offers a text capability that can be useful in other areas and the QL itself is still a useful tool that is easier to use and more functional in a lot of areas than a PC. How many people do you know that have a 16 Meg Pentium driven PC and use it to write letters and keep a database ?

A Personal View

I am not 100% convinced that I would be happy reading a manual in this way for the first time, although the ability to call up the manual instead of a short help file does appeal to me. Despite all evidence to the contary I do sit down and read manuals. It is all too easy to miss items in paper manuals and I would imagine that it is even easier to miss them when you are following a trail of tags around a screen.

Without the aid of a larger display you are very limited as to how much of the manual you can have on the screen while operating the program - and most of us make our first forays into a new program with the manual propped up beside the monitor.

HTML is an interesting text form to play around with and can be used to produce some useful documents. If you have access to the net and are either using SMSQ/E or have the facility to transfer files from a DOS disk to a QL format one then the ProWesS Reader can be used to read any HTML documents that you may encounter there. There are a few drawbacks to using the ProWesS reader for other HTML documents. The graphics support is lacking at present which means that any

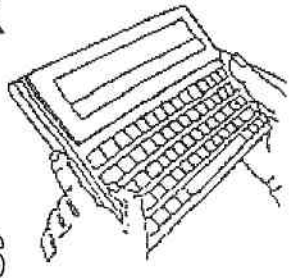
➪

sinclair Z88

OFFICE/FAX 01494–871319 (EEC) *W.N. Richardson & Co.*
MOBILE: 0850 597650
6 Ravensmead
Chalfont-St-Peter
Buckinghamshire SL9 0NB

THE IDEAL PORTABLE COMPANION FOR THE QL

THE CAMBRIDGE Z88 A4 NOTEBOOK



WITH BUILT-IN WORD PROCESSOR, SPREADSHEET, DATABASE, BASIC, CALCULATOR, CLOCK, ALARM, CALENDAR & VT52 TERMINAL.
USES 4XAA ALKALINE CELLS (ca. 20 HOURS) *

WE DO REPAIRS, PART EXCHANGES, AND WILL BUY Z88's & PARTS

ALL UK PRICES INCLUDE VAT.

DESCRIPTION	UK	USA
CAMBRIDGE Z88 COMPUTER	**£99**	**$130**
32k RAMPACK	£18	$25
128k RAMPACK	£38	$50
512k RAMPACK	£80	$100
1Meg RAMPACK	£160	$200
32k EPROM PACK	£18	$25
128k EPROM PACK	£24	$33
256k EPROM PACK	£55	$75
EPROM ERASER	£32	$43
PARALLEL PRINTER LEAD	£39	$50
SERIAL PRINTER LEAD	£12	$16
*** MAINS ADAPTOR (230vac; 6v,500ma)**	**£10**	**$20**
TOPPER (PROTECTIVE COVER)	£12	$16
CARRYING CASE (PLASTIC)	£10	$12
'Z88 MAGIC' A BETTER USER HANDBOOK	£15	$20
FILE TRANSFER TO OTHER COMPUTERS		
SPECIAL Z88-QL SERIAL LEAD	£10	$15
COPY DISKS OF QUANTA PROGS IMP/EXP & ARCHVIE EXPORT	£2	$3
PCLINK KIT (For PCs)	£25	$35
Z88 TO MAC KIT	£25	$35
Z88 TO BBC KIT	£25	$35

UK PRICES INCLUDE VAT; USA PRICES DO NOT. FOR OTHER NON-EEC COUNTRIES DEDUCT 10% FROM THE UK PRICES.
POSTAGE UK £5. EEC £15. USA £20. OTHER COUNTRIES £30.

ALL THE STOCK IS WARRANTIED FOR 90 DAYS. IN THE EVENT OF REPLACEMENT BEING ARGREED, BUT THE ITEM BEING OUT OF STOCK AT THE TIME, A REFUND WILL BE MADE PROVIDED THE ITEM IS RECEIVED IN GOOD CONDITION.

QL & PC COMPUTER USERS WILL FIND THE CAMBRIDGE Z88 ESPECIALLY USEFUL FOR WORK AWAY FROM THE DESKTOP, WITH TRANSFER PROGS DATA CAN BE SAFELY EXCHANGED WITH THEIR DESKTOP SYSTEM.

W.N.RICHARDSON & CO CONTINUES TO PROVIDE FULL SPARES AND SERVICES FOR SINCLAIR COMPUTERS, QL & THE CAMBRIDGE Z88

file containing a a command to view a picture in anything other than a bitmap format will not be recognised.

Any attempt to load a picture that is not in the right place will halt the loading of the rest of the text. There are also many commands in the full HTML set that are, so far unsupported. On the whole this does not matter too much because the reader will ignore the ones that it does not understand and not even print them to the screen but it does reduce the functionality of the program. Still it is early days for this type of program on QDOS/SMSQ and I get the impression that Joachim needs a 48 hour day just to keep things going. A whole new world has opened up to the QL user - and that can't be a bad thing can it?

Editor's Note: PROGS have implemented HTML to 2.0 standard and Roy's article refers to this standard of course. You may find slight differences from program to program and standard to standard, I know because I have been on a course and come out of it somewhat confused by all this.

■

My BOOT

Dilwyn Jones

The readers' questionnaire returned by readers of issue 2 suggested that Jochen's article called My Boot was extremely popular, so much so that we decided to run a short series under the same name.

I will start this off by looking at developing BOOT programs for the pointer environment. A lot of people use applications such as the shareware QPACer program to help to set up their BOOT programs when they first start to use the pointer environment. And I know from my trader days that trying to create the ultimate boot program for PE (pointer environment) gave quite a few new QPAC2 users a little bit of a headache at first.

I will briefly describe the elements involved, describe the optional files available for various programs, installing basic extensions for other programs and various examples. The article is mostly aimed at those who are new to the pointer environment, or those who are considering starting to use it.

The pointer environment itself is an extension to the operating system of the QL (actually built into the SMSQ/E operating system from JMS), where it provides for improved task switching (CTRL C from job to job) and multitasking. It is important to note that Task Switching is not quite the same as Multi Tasking. With the former, you simply suspend one program and switch into another, and in so doing save the display from the former program and bring up the display of another. So both programs don't actually work at the same time. With true multitasking, 2 or more programs are actually doing something simultaneously, e.g. a clock display on screen at the same time as the program you're working with.

I will introduce various elements as we go, with examples to help to explain things.

```
100 REMark the simplest pointer
environment BOOT program
110 TK2_EXT
120 LRESPR FLP1_PTR_GEN
```

This simply activates Toolkit 2 with a TK2_EXT command (not all versions of Toolkit 2 need this, see your Toolkit 2 or disk interface manual). The next line loads the "pointer interface" file, PTR_GEN. This file contains the code needed to set up the new console channel driver, responsible for controlling the on-screen pointer and saving and restoring of window display contents for the programs loaded. This simple program will actually achieve quite a lot while you get used to the pointer environment. But many programs which need hotkeys or window manager facilities of course cannot use this simplest of programs, because the window manager and hotkey system are contained in another pair of files, called WMAN and HOT_REXT.

```
100 REMark our second BOOT program
110 TK2_EXT
120 LRESPR FLP1_PTR_GEN
130 LRESPR FLP1_WMAN
140 LRESPR FLP1_HOT_REXT
150 HOT_GO
```

The three files, PTR_GEN, WMAN and HOT_REXT need to be loaded in the order shown. The LRESPR command (part of Toolkit 2) loads and installs the three pieces of code.

Line 150 (the HOT_GO) command simply switches on the HOTKEY JOB, a small program which controls the hotkeys, which are various key definitions you can set up, rather like Toolkit 2 ALTKEY commands, but much more powerful and varied. It is important to note that once a HOT_GO command has been executed, you will suddenly find that RESPR statements will not work any more. They give a 'not complete' error message, because HOT_GO starts a job executing (the hotkey job) which prevents space being allocated in the resident procedure memory area. Although certain versions of the LRESPR command will continue to work with jobs running, they

are less secure since with jobs running they take memory from the common heap rather than the respr area.

A hotkey is a key definition which (largely irrespective of what the current program is doing) allows you to define an action which the computer will carry out when you hold down the ALT key and press the key which you set up. Hotkey commands are many and varied, and can be used to set up actions like loading programs, making them resident (they stay in memory until you switch off or forcibly remove them), switching to that program, send commands to BASIC and so on. Most pointer driven programs come with these standard PE files, and most programs include at least limited documentation of how to use the hotkey commands. QPAC2's manual includes a full definition of the commands.

Please note that although this program would work with SMSQ on the QXL, it would not be required on a machine when running SMSQ/E, since the equivalent of PTR_GEN,WMAN and HOT_REXT are built into that system. If the program must be portable between operating systems on a QL (this doesn't apply to QXL), we can test for the SMSQ/E operating system and take suitable action by adding these lines to the program above:

```
115 IF VER$='HBA' THEN
145 END IF
```

Or, alternatively, you can use the same test (for version 'HBA') to LRUN another completely different boot program for SMSQ/E.

Most other extensions we'll need to load will be placed in the boot program after these three essential files. There is, however, one important exception. Digital Precision Ltd's Lightning graphics accelerator. The Lightning code files must be loaded before the pointer environment files. Here is an example taken from my personal BOOT program. The RESPR statement contains a number which may need to be changed depending on your version of Lightning. Please note that I usually load extensions and programs from hard disk, but have changed it to floppy disk for this article.

```
102 s = RESPR(33792)
104 LBYTES 'FLP1_lng_TEXT_ext',s : CALL
s
106 LBYTES 'FLP1_lng_GRAF_ext',s+22360
: CALL s+22360
108 LBYTES 'FLP1_lng_MATH_ext',s+26676
: CALL s+26676
```

There are now certain other common extensions which may need to be loaded. It would save a bit of typing if we temporarily assigned default drives to tell the QL where to load our extensions from. This would make it easy to change the program if we later buy a hard disk, so we would only need to change this drive statement from FLP1_ to WIN1_ for all LESPR commands which follow. Due to the problems caused by HOT_GO we'll remove that command for now, and add it to the end of the program later.

```
150 DATA_USE FLP1_ : PROG_USE FLP1_
```

Suppose we have a little toolkit of basic extensions called EXTRAS_cde:-

```
160 LRESPR EXTRAS_CDE
```

We want to load Turbo Toolkit:-

```
170 LRESPR TURBO_TK_CODE
```

and the QLiberator compiler runtimes, job extensions, and the QLOAD and QREF utilities from Liberated Software:-

```
180 LRESPR QLIB_RUN
190 LRESPR QLIB_EXT
200 LRESPR QLOADREF_BIN
```

If I wanted the QLiberator compiler to be available, I could simply LRESPR the required extensions. Which ones to use? Look at the program's BOOT file and LRESPR the extensions. For example:

```
175 LRESPR QLIB_SYS
```

I also use the Menu Extension from JMS:-

```
210 LRESPR MENU_REXT
220 LRESPR OUTLN_REXT : REMark
outlining extension for menus
```

I also use the QTYP spelling extensions:

```
230 LRESPR QTYP_SPELL
```

and QPAC2 itself:-

```
240 LRESPR QPAC2
```

As a small extension to QPAC2 I use Wolfgang Lenerz's File Info System, which allows me to associate certain programs with certain types of file, so that when I try to execute a text or graphics file from the QPAC2 files menu, instead of trying to execute the file, it calls up the program itself and tells the program to load the file automatically. It takes a while to define the associations between programs and file types and their filename extensions initially, but is well worth the effort.

```
250 LRESPR Qpac2
260 LRESPR FileInfo2_bin
```

I make a lot of use of Easyptr 3 in basic and compiled basic. The Part 2 toolkit of extensions is the one I normally use:

```
270 LRESPR PTRMENR_CDE
```

Some extensions for the Solvit Plus 2 word games program:

```
280 LRESPR SOLVIT_cde
```

And finally, I have a Qubide, so I load the two sets of extensions to be used with that:

```
290 LRESPR WD_bin
```

```
300 LRESPR SUB_bin
```

The order of most of those is not too important, but you must be careful that if one set of extensions relies on the presence of others (e.g. FileInfo2_bin relies on QPAC2 being present) you must be careful that they are loaded in the correct order. Most toolkits are not critical in this respect, but any that do depend on something else being present will usually tell you of the fact.

Here are some of the hotkeys I use. The actual list of definitions in my boot is quite long, so I have chosen just a few examples or we'd be here forever (anyway, Jochen might shout at me for wasting space in the magazine).

Hotkeys can have an upper case and a lower case definition, so ALT A is not necessarily the same as ALT a, but if only one is defined, you may find that the upper case definition duplicates the lower case one until you give it a separate definition. The convention is use is that SHIFT ALT + a key denotes some kind of loading or program starting action, while lower case definitions (ALT+a key) generally "pick" (jump to a program) or perform some action with an existing application. Sometimes, this backfires on me, when I forget I have CAPS LOCK on, because when trying to pick a copy of Quill which is already running, I accidentally start another copy instead, because with CAPS LOCK on, you can't get the lower case keys! Oops, only myself to blame. Not too bad if using a QXL or external keyboard, though, as those keyboards usually have a CAPS LOCK indicator light.

I will start with key definitions to perform straightforward loading of programs. I never load any resident programs apart from the QTYP spelling checker, although I used to load the QPAC1 calculator resident when I was a trader, for obvious reason. So my BOOT program no longer features several HOT_RES command to place programs in memory ready for instant startup, and I just define hotkey to load programs as required. ERT is an error reporting procedure for handling the codes returned by the hotkey functions.

```
320 ERT HOT_RES('T','QTYP')
330 ERT HOT_LOAD('C','CALCULATOR')
```

I use a text editor called S_Edit quite a lot in preparing articles for QLToday. This command makes SHIFT ALT s (or ALT S) load the program:-

```
340 ERT HOT_LOAD('S','S_EDIT_OBJ')
```

I also use Quill a lot, but that program is a little naughtier, because it tries to grab all available memory to itself. So we can tame it a little with the optional P parameter, to protect a lot of memory from being stolen by Quill:-

```
350 ERT HOT_LOAD('Q','QUILL',P,128)
```

This allows Quill to have about 128 kilobytes of memory to itself when it starts up. There are several other programs on hotkey definitions, but I will omit those for this article. The next set of definitions are to 'wake up' various QPAC2 menus:

```
360 ERT HOT_WAKE('x','Exec') : REMark
wake up EXEC menu in QPAC2
370 ERT HOT_WAKE('f','Files'): REMark
wake up FILES menu in QPAC2
380 ERT HOT_WAKE('J','Jobs') : REMark
wake up JOBS menu in QPAC2
```

Now I rarely use buttons and the button frame, at least not from my boot program. In the early days I got carried away and put everything on buttons, and the screen became too cluttered. Many programs have facilities to put themselves to sleep in the button frame, and I do use this facility. I also have a mouse, so I set the mouse hotkey (pressing both left and right mouse buttons) to get to the button frame when it happens to be buried under all my other programs (snag with a Super Gold Card - you can get quite a lot of QL programs into the machine at the same time in 4MB, try doing that on certain other computers).

```
390 ERT HOT_WAKE ('.','Button_Pick')
```

Some programs have no facilities to put themselves to sleep in the button frame. QPAC2 has a facility called BUTTON_SLEEP to do this. It is very useful; if you want to keep a program in memory but not take up much screen area, BUTTON_SLEEP will zap it into a button, keeping it out of the way, yet easy to find (click the mouse buttons and DO on its button to bring it back to life just as it was when you left it.

```
400 ERT HOT_WAKE (CHR$(233), 'button_sl
eep')
```

This makes CTRL ALT F1 put the current program to sleep in the button frame.

I have a program called DEV Manager which is used for remembering DEV and SUB settings for programs which are not easy to convert to hard disk. I have assigned the + key (SHIFT = on a British keyboard) to load it:

```
410 ERT HOT_LOAD ('+', 'devman_norun_ob
j')
```

I use only one HOT_CMD definition. This is for when I want to QLiberate a BASIC program. Simply by pressing ALT SHIFT L it brings Super-BASIC to the top and calls up QLiberator with the usual 'Liberate' command. Obviously, I have all the QLiberator extensions installed and ready for this to work:

```
420 ERT HOT_CMD ('L','liberate') :
REMark pick basic and start QLiberator
```

Now for the PICK commands, which bring already loaded programs to the top ready to be

Professional & Graphical Software

ProWesS

ProWesS is a new user environment for the QL. ProWesS is short for "PROGS Window Manager", but it is much more than that. Apart from a new window manager, it contains all the system extensions from PROGS, and is essential if you want to run programs which need these extensions.

The ProWesS reader is a major part of the package. It is a hypertext document browser. This means that text files which include formatting commands (including pictures) and possibly links to other files can be displayed and read in this program. This is used in ProWesS to read (and possibly print) the manuals, and display the help files. The hypertext documents which are used by the ProWesS reader are in HTML format, the format which is popular on Internet to display World Wide Web pages.

Another important aspect of ProWesS is the possibility to allow programs to automatically install themselves on your system, and to be able to run them without resetting the system. This means that, when you get a new program, all you have to do is insert the disk and indicate "start the program in flp1_", a menu option in the "utilities" button. To install a program, you indicate "install software", and the software can be added to your system. This way, you don't need to know how to write a boot file to use the multi-tasking capabilities of your computer.

ProWesS includes many programming libraries. These include syslib, an interface to the operating system, PROforma, a vector graphics system, allowing rendering both on screen and on paper (via a printer driver). The DATAdesign engine is also part of ProWesS. It is a relational database system with a bonus, as you don't even need a key field. You get a powerful record at a time data manipulation extension to the language you already use. Of course it also includes ProWesS itself, the new resolution independent window manager.

DATAdesign

Never before has it been so easy to creat, fill in and maintain your personal databases. To start a new file, just type the names of the fields. To add or delete a field, no problem, just do it. To change the name of a field, just indicate it.

What's more you can choose to look at only those fields you want, and in any order you specify. And you can select which records you want to view, and which not.

DATAdesign allows you to have some hidden comments for each record, have a general look at the file (in tabulated form) or to transfer a record into the scrap of hotkey buffer, so you can easily import a record in your favorite text processor or editor !

Security is a strong point for DATAdesign. Usually files will be memory based, for maximum speed. Files can also be disk based, making sure all changes are immediatly stored on disk, so even in the event of power failure, you can at most loose the changes to one record !

Naturally, DATAdesign is good at sorting and searching. And if you were using another database, you can convert Archive or Flashback files to DATAdesign.

The new v4 of DATAdesign makes the program even easier to use than before. You can now also have QD-style icons on your screen to make the program even easier to operate.

PFlist

Easy to use program to create listings on any printer (especially inkjet and laser). This ProWesS application allows you to indicate the files which have to be printed. Each column contains a footer which can include the filename and filedate. The listings always allow perforation. PFlist can create your listings in two columns and in landscape (or both).

All our software has electronic manuals, which can be read and printed in the ProWesS reader. However, we can also supply printed copies of the documentation (or even your own HTML files). The costs are BEF 2 per page, plus postage costs. Contact us for more details.
ProWesS does not include the programming documentation. This is available via bulletin board and public domain software suppliers. The programming documentation is readable in the ProWesS reader, and partly in DATAdesign (the demo version is be included). We can supply the programming docs for BEF 100 (HD disks only!) If ordered with something else, you don't have to pay extra postage.

ProWesS - BEF 2400 **DATAdesign - BEF 1200** **fontpack - BEF 3000** **PFlist - BEF 600**

Payment terms :

You have to run ProWesS to make DATAdesign and PFlist work (even though DATAdesign uses wman).

All our software is normally supplied on high density (HD) disks. However they can be obtained on double density (DD) disks at an extra costs of BEF 100. To use ProWesS and any of our other packages, you need a system with at least 2MB of memory. You should have a second disk drive, or a harddisk (recommended). The use of SMSQ/E is strongly recommended for optimal use of ProWesS.

If you are VAT registered (specify registration number) or live outside the EEC, the amount to be paid is the total (including postage) divided by 1.21 (no need to pay too much).

Payment can be done by EuroCheque in BEF, or by VISA, EuroCard or MasterCard. Credit card orders can be handled by phone. For credit card, please specify name of card owner, card number and expiry date.

Postage : Costs of postage and packaging have to be added. You can choose the quality. Rate depends on no of programs.

copies	*priority mail* Belgium	Europe	World	*ordinary mail* Belgium	Europe	World
one	100	200	230	100	120	135
two	110	340	420	110	180	215
3 or 4	120	560	770	120	300	370
5 to 8	160	870	1250	160	550	675
more	200	1130	1610	200	800	1005

All prices are in BEF, including 21% VAT

Haachtstraat 92, 3020 Veltem; Belgium, tel/fax (016) 48 89 52

used. The first one picks SuperBASIC, the second picks the calculator, the third picks Quill, and the fourth picks S_Edit, the fifth picks DEV Manager, and the last picks QLiberator where I have already started it and wish to jump straight to it rather than CTRL C around to find it. I actually have more than this, these are just the chosen examples.

```
430 ERT HOT_PICK ('b','') : REMark pick
BASIC
440 ERT HOT_PICK ('c','calculator') :
REMARK pick QPAC1 calculator
450 ERT HOT_PICK ('q','Quill') : REMark
pick QUILL
460 ERT HOT_PICK ('s','S_Edit') :
REMark pick S_Edit editor
470 ERT HOT_PICK ('=','DEV_manager') :
REMark pick DEV manager
480 ERT HOT_PICK ('l','QLib_3.36') :
REMark pick QLiberator
```

Now I execute one of the hotkeys, to make sure I land in SuperBASIC to print the date to the screen (so I can check the clock setting).

```
490 HOT_DO 'b' : REMark pick basic
```

While in BASIC, I define some altkeys to be used with QFIND. The first uses ALT ? to start an ED QFIND("") statement, and backspaces two places with two CHR$ 192 control characters to move the cursor between the quotes, ready to type the name to search for. This could probably be done with a HOT_CMD too (see if you can work out how to do this).

```
500 ALTKEY '?',"ed qfind('')"&CHR$(192)
&CHR$(192)
```

Having found the first instance, ED QFIND without the brackets and quotes will find subsequent instances:

```
510 ALTKEY '/','ed qfind'&CHR$(10)
```

The next one is a little unusual. When using Quill to prepare documents to write to QL Today contributors and readers (not to mention Sir, the publisher), I have defined ALT backslash (ALT \) to set the typeface to bold and insert the phrase 'QLToday' so that I don't have to keep typing F4 for Tyeface, B for Bold etc - the QLToday phrase thus always looks the same and saves me some typing in the process! This is essentially using ALTKEYs as simple predefined macros for programs where I know the required keypresses:-

```
520 ALTKEY '\',CHR$(244)&'bQL'&CHR$(244
)& 'hTODAY'&CHR$(244)&'h'&CHR$(244)&'b'
```

At this point, I need two separate versions of the program, depending on whether the program is to run on a JM (or earlier) version of the ROM, since you cannot use extensions in the same basic program as that in which they were loaded on the early ROMs. So for the QL with version JM rom, I have saved the following lines as a second program, called BOOT2, LRUN or MERGEd from the first program.

The next line defines default settings for QLiberator.

```
1000 QLIB_USE win1_QLIB_,win1_QLIB_ ,,,
'0011111000'
1010 Q_L REMark for QLiberator
```

We must remember to activate the hotkeys job!

```
1020 HOT_GO
```

Check the clock, in case it's "gone west" since I last used it:-

```
1030 PRINT\'Clock setting:';DATE$
```

And that's it. Your BOOT program can be simpler or more elaborate, it depends on what suits you. Everyone's boot can be different, just as people all over the world wear different sizes, shapes and colours of boots! There is not really a right way of writing these programs, as long as it works for you it's probably all right. The only really important factor is that the few bits of it which need to be in a certain order have to be correct (usually loading extensions in the right order). ■

Portishead Bristol QL Workshop

Henry Orlowski

Sunday, 17th November. A memorable day out steeped in QL extravaganza was had by many a QL user and enthusiast on the above Sunday in Portishead. Of course I'm biased, since in my other guise I am actually the Chairman of the Bristol QL User Group who organised the event. Nevertheless I can state without fear of contradiction that the whole event continued the fine tradition of quality established by this local user group.

Portishead represented a change of venue from the more usual recent outings to the Walton Park in Clevedon. Portishead was the original venue many moons ago and many of those attending commented on its merits. Practical advantages such as no parking problems (with assurances that the threat of clamping prominently displayed was but an idle threat) and the ability to get tea, coffee, and hot snacks throughout the day, were very welcome.

However the main advantage of Portishead was that the whole proceedings could take place in one single floor area with separate but linked zones housing the different activities:

* two separate demonstration/lecture zones with rigs set up and large screen monitors.
* Quanta Welcome Desk
* Bring 'n Buy

* Help/Advice Clinic
* Traders Zone
* Enthusiasts' set ups

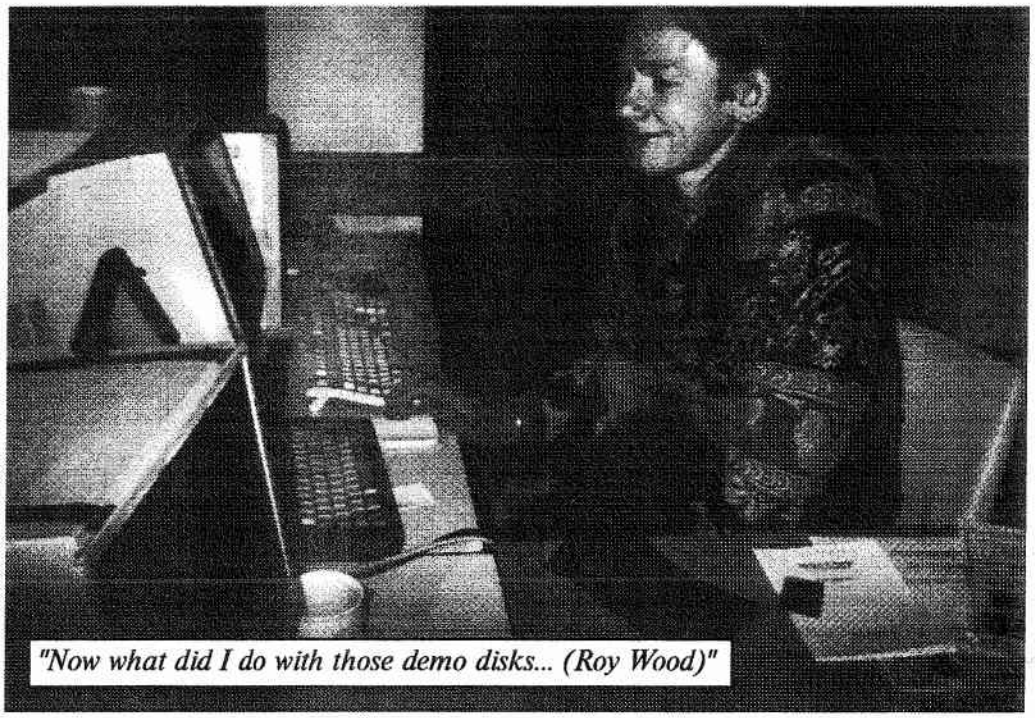
All the main QL traders were present: Qubbesoft (Qubide, Aurora), QBranch, Quo Vadis, Geoff Wicks (Solvit), Jochen Merz (QPC emulator), Diren (Amadeus, Keyboard interface), TF Services (Hermes, Minerva), Miracle Systems (QXL2), EEC. The soon to be shipped Aurora board from Qubbesoft and the new QPC emulator from Jochen Merz were certainly creating a good deal of interest.

The Quanta library, run by Vic Avery was in place responding to the high level of demand for library disks and updates which could be provided on the spot.

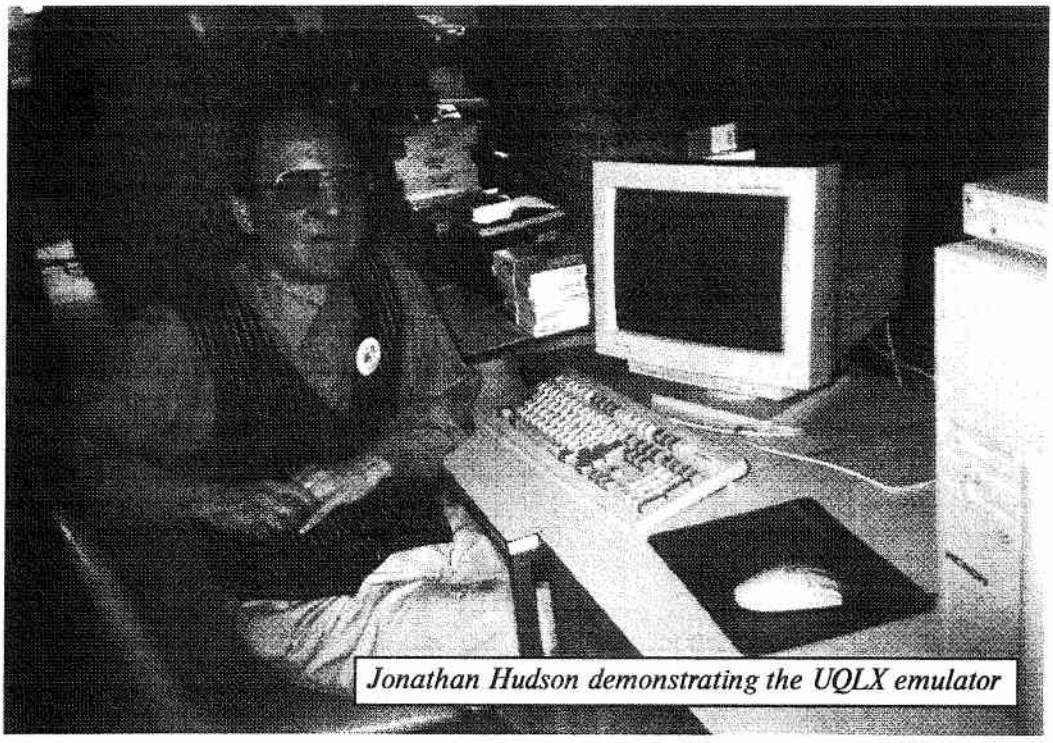
Of course no Bristol workshop is complete without the famous Bring 'n Buy manned by local group users like Mike, who provided a service for those wishing to dispose of, or acquire second hand software and hardware. As usual there were plenty of good bargains to be had with brisk trade in some items, including complete systems.

Some users visited the Help/Advice desk (another originality of the Bristol workshop) where their hardware or software difficulties could be solved by the two resident experts, John and Jack.

All the remaining spare space was filled by users who brought along their own rigs in various guises to share their experiences with others. No single set up was the same, each one an original. In fact this is where you feel the fascination that the QL holds for the majority of its users. Very few looked like the original QL in its black box. Many were PC's running as QL's or QL's made to look like PC's. In some cases, the machines were QXL- or QPC-equipped PCs cased in QL-style black - it is becoming hard to tell the difference!



"Now what did I do with those demo disks... (Roy Wood)"



Jonathan Hudson demonstrating the UQLX emulator

Most important of all though were the visitors who came to look, or ask, or marvel or even to buy. And many of the 100 plus who came appeared to have found what they were looking for, and were happy to make a whole day of it. After all there was a lot to see and everybody was friendly and helpful.

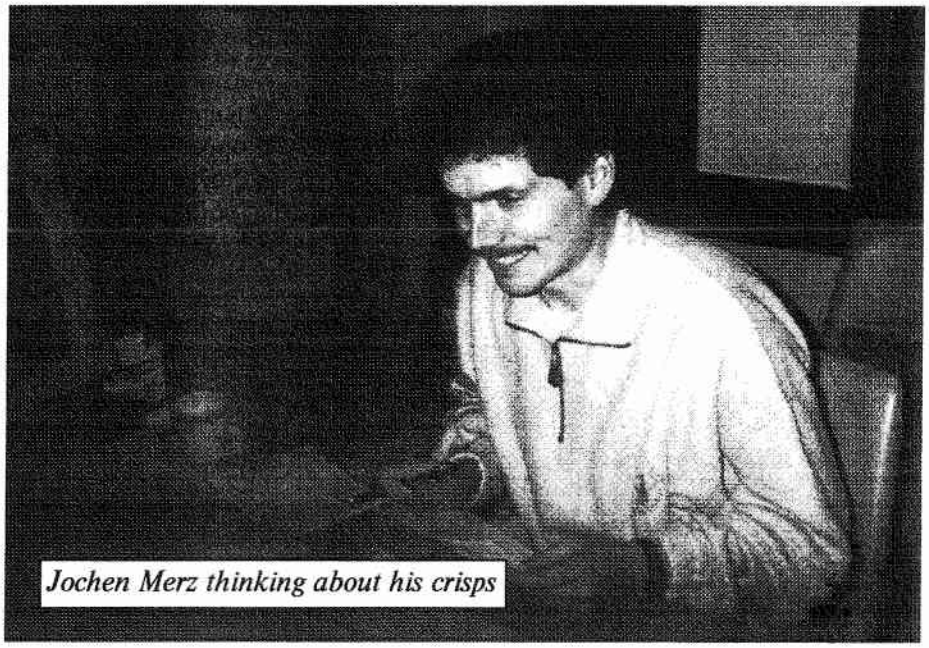
In addition the was a significant programme of talks or lectures, as seems to have become a familiar trait of the Bristol workshop. This time round however, the Bristol User group decided to have a change from the normal round of product demonstrations by traders, and instead to concentrate on QL topics or subjects which could form the basis of a teach-in or Question and Answer session. This appeared to be extremely successful due to the topical nature of the subjects covered and their variety.

The first lecture was Super-Basic programming in the Pointer Environment by the Bristol group's own John Miller. Secondly came an introduction to machine code programming by Alan Bridewell. This is the second time that Alan accepted an invitation to conduct this talk and as before it drew a lot of interest. The morning's proceedings were completed by Dilwyn Jones' Question and Answer session on graphical and DTP software for the QL.

After lunch there were two major opportunities to discover everything you wanted to know on the subject of 'comms'. A veritable Commsfest. Firstly Jonathan Hudson of QTPI fame conducted an introduction to comms. This was followed by a demonstration of PBOX bulletin board system by that other well known QL personality Phil Borman.

The adaptability of the organisers was also called upon, when it was discovered that a number of users were interested in a Text 87 forum to discuss specific issues. This was promptly set up and announced, and took place in tandem with the Commsfest. Even Ron Dunnett was able to give a talk on his new Aurora board which will probably be shipping by the time you read this.

You may be wondering how the organisers managed to fit all the above activities into the day. Well it seemed to run smoothly because it had two things going for it. Firstly there were two lecture zones. This meant that the forthcoming session could be set up whilst the current one was still ongoing. Anybody interested in the current one could continue after the forthcoming one had started. The benefit was that a strict timetable could be adhered to and a lot fitted in.



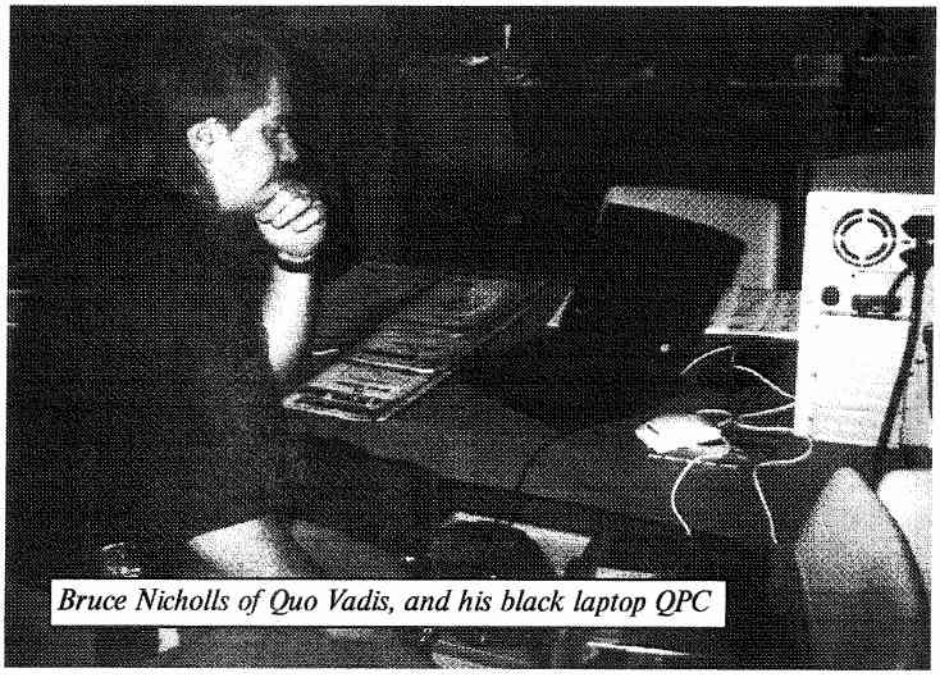
Jochen Merz thinking about his crisps

The second thing it had going for it is the fact that there was a good PA announcement system which could be heard throughout the zones. This kept everybody constantly in touch with everything that was going on, and ensured that visitors did not miss anything they were interested in.

All in all a very enjoyable, well attended, and fascinating day. I can't wait for the next one.

[Sorry about the picture quality - most of the other pictures were even more dark - Editor]

■



Bruce Nicholls of Quo Vadis, and his black laptop QPC

Letter Box

Frank Gutteridge wrote:

Fundamentally, I agree with all that Jonathan Hudson has to say. Personally, what I most miss with my present system is the inability to access the Internet and the absence of CD ROM drivers. Through QTPI and CompuServe I have access to E-mail, Telnet and CompuServe's own services, but there is no way through to the Web. In any case, even if this were possible, the Atari's hardware would be totally inadequate.

I am therefore contemplating moving to the PC. Now, by next year if this is not already the case, the entry level for PC's will be 200Mhz Pentium machines, the upper range machines having dual Pentium processors with Windows NT and SCSI Fast drives. If one is to enter the PC fray for the first time, there is little object in starting with something already obsolete, like a low end Pentium or 486 machine.

If one is to try and continue in some form with SMS, the alternatives are either the QXL card or QPC. The problem with the QXL card is that it cannot be used with modern laptops or even luggables since PCMCIA cards came in. Thus QPC seems to be the most interesting option except that it only functions under DOS when one will probably be using Windows NT (and possibly Linux as well) as the operating system ***[QPC does work under Windows 95 and NT, see QL Today Issue 4 - Editor].***

Evidently one could buy a cheap second-hand PC for either QXL or QPC but then the whole object of the exercise is lost as the PC itself will not be up to present day needs ***[QPC works much better on a fast, modern machine! - Editor].***

I have always wondered why SMS, which claims to be processor independent ***[where does it claim this?]***, has not been ported directly to the PC like Linux, avoiding cards or emulators, and thus providing users with up to date platforms on which to continue to use their favourite system. Linux includes C and C++ development tools, networking, E-mail and news and the attractive X-Windows system, yet on CD ROM only costs $39.95, with an optional future upgrade subscription at $24.95. Such a typical installation requires 50 MB of hard disk space, which I suppose would send most QL users into a spin.

I suppose that what all this boils down to is that the SMS/QDOS user base is not committed to having complex, modern programmes running on

its computers, as intimated by Jonathan. If it is really true that most users do not have the pointer environment and hard disks and that what they want is a better printer driver for QUILL, then I can not see much hope for the future - this parallels a statement that I recall seeing some years ago in QL World where someone said that the THOR was an elitist machine!!!

I must say that I can only hope that that our community will break away from this obsession with the low end of the market and accept that we must be looking towards what Jonathan calls "the demands of modern, graphical, Internet-worked applications".

H.P.Huyg wrote:

Re: SPY & MASTER SPY Another Programmers View. With interest I have read the review by Norman Dunbar in QL Today #3. Early 1989 I bought Master SPY from the authors. Its predecessor for me was Metacomco's ED (supplied with BCPL & Assembler). The main reason for moving to Master SPY was the facility to move 'blocks' from other text (i.e. source files) to the one under development. As the reviewer is biased in his opinion, so am I. I do not know anything else in the QL environment, so I am unable to compare. It is even not possible to compare since my version is 1.7. However, looking at the functionality of Master SPY, it does what it is expected from it, and it does it very well, and it would be very difficult to persuade me to use anything else. In 1989 I have written to the authors with some comments. The main one relates to the facility tho 'pick' a line and 'drop' it somewhere else. (CTRL L). Useful. As a programmer I wanted something more: the facilty to 'pick' a line and to 'drop' it as many times as needed.. Early August R.Howe wrote me to say that he had moved his focus towards the AMIGA. Now some other matters.

1. My version of Master SPY works very happily like this: EX master;filename. You are presented immediately with the file you want to play with.

2. The minimum amount of workspace on top of the concerned filesize can be configured as mentioned as you like it. I have not changed it. Entering 20K of text is a lot and if you are running full then you just write the lot & reload program & file for another 20K of extremely important and useful text. The only real problem occurs if you want to copy a LOT from another file into the new file. As a professional programmer I would say that this situation might be a subtle hint to split your modules. Concerning the (K)ernel information, I suspect that it is only useful data for the author(s) in case of trouble, moreover, I just tried it after reading the review, the information disappears from the screen the moment I touch any key (again, on my version).

4. The matter of configuration is a serious one. The reviewer could have mentioned that the author(s) have explained exactly why it has been done the way as described. Recently I have built a decent front-end to a Utility program I had written. It turned out that the front-end required more effort than for the utility itself! Configuring is a one time operation, and it must be years ago that I had to do it for Master SPY. Having said that, if you ask my humble opinion, then I would say that people allowing executable binaries to be 'poked' should be banned from any computer environment. Configuration data should be OUTSIDE the program itself. I consider the fact that SMSQ has to be 'massaged' with 'configure' equally as not very acceptable.

5. If one would like Master SPY really up to date then one should contemplate the facility to have two or more filepages NEXT to each other rather than on TOP of each other, where one could manipulate blocks of data with a rodent. That would require at least 17" screens (or more than one 14" screen).

Comments & Suggestions for QL Today
Articles by Reginald Gilbert

I have little opportunity to get to meetings and discuss problems or try out software. I suggest a regular article which reviews all available (and even out of print) software in a particular field - e.g. word processors, spreadsheets, page designers, genealogy programs etc (in the latter case, since PC Conqueror is available to make my QL think it is a PC, it might even be appropriate to include the best of PC programs). The review should be along the lines used in "Which" or "Consumer Reports", i.e. not just saying that "program x is best", but outlining what each program does well and not so well, so that the reader can decide whether the additional cost is justified to him/her by the advantages. Thus, on review of Word Processors could note that Quill is user-friendly, slow (if you can type faster than 20 wpm, but can be boosted by Turbo-Quill), and works quite happily with many, if not most, printers. PerfectionSE has more features, can move or delete blocks of text at a pace greater than that of a snail, can print alternate pages (leading to double sided printout) but is a menace with some printers which go mad with the internal control codes used in the program, and of course it is not cheap, like Quill (today you can get a QL plus Quill for about the same cost as Perfection SE).

Such a series would help many, and enable them to decide whether to "splurge" on a new program, or stick with the old. Each article would probably require 5-10 pages to do justice to the subject, and give enough information to the reader. Facts and figures should predominate, but "feelings" and opinions should not be omitted.

The series could also include hardware and systems.

Another series could tell me what various programs and hardware can do. I use a computer about once a month ***[clearly not a QL junkie like the editor! - Dilwyn]***. I don't like Macintosh-like systems (including Windows and pointer systems) but that is a personal prejudice. BUT I don't know what any of the four "prize" programs do, though I guess that WinEd is to do with Winchester drives. But there are dozens of programs which I might want to buy if only I knew what they were used for. One short paragraph per title should be adequate, and of course it would be preferable to group them if possible either by subject or by seller.

Again, both hardware and software could be included, though I must say that advertisers usually describe what hardware does much better than what software does!

Anyway, I found it hard to select (for the survey) which articles I liked best - nearly all were of some interest - and the "like least" category was dictated by the subject matter which did not interest me, rather than poor articles. I liked the style of Chris Boutal's article, though I wished for more information and comparisons between various programs.

Keep up the good work!

Dilwyn responds - Is anyone willing to rise to the challenge set out by Mr Gilbert? We do want to print reviews, but at the moment are finding it a little difficult to find reviewers, especially for certain types of software. Please get in touch if you fancy reviewing a program for the magazine. In order to find out what programs do, I suggest you ask the software suppliers for a catalogue listing their products. Some suppliers issue a catalogue on disk, while the others issue printed catalogues, but most contain at least a short description of what each program does, and there seems little point in just filling up the magazine with such descriptions already available in the catalogues.

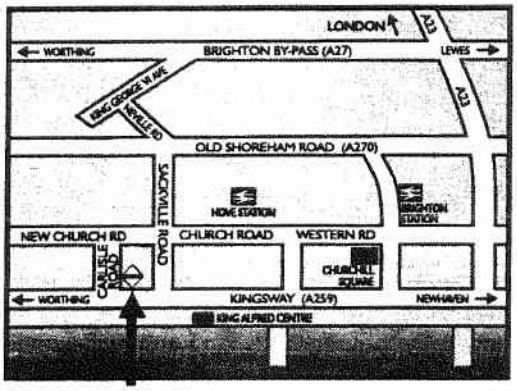
■

The QL Show Agenda

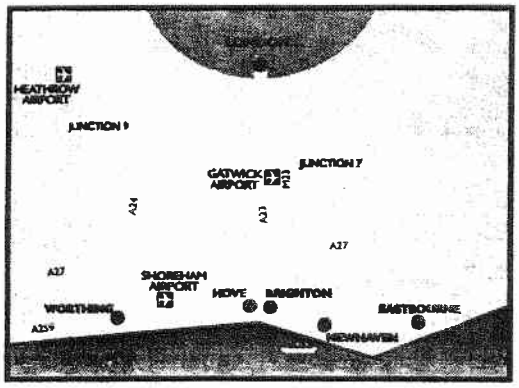
Saturday 25th of January 1997	France, Paris QL Meeting. The Venue is 31 Rue de Fontarabie. Contact Jean-Louis Dianoux (22 Av. Lénin, 93230 Romainville, France).
Sunday 2nd of February 1997	England, Hove Quanta Workshop, Excelsior Hotel, Kings Way, Hove (on the seafront). Contact Roy Wood (01273) 386030 (Venue see map below)
Saturday 8th of February 1997	The Netherlands, Eindhoven, St. Joris College - details as usual.
Saturday 8th of March 1997	England, Manchester Quanta Workshop, The Gardens Hotel, 55 Piccadilly, Manchester
Saturday, 5th of April 1997	The Netherlands, Eindhoven, St. Joris College - details as usual.
Sunday 20th of April 1997	England, Quanta Workshop and A.G.M., The Victory Services Club, 63/79 Seymour Street, London W2 (5 minutes walk from Marble Arch)
Saturday, 3rd of May 1997	QL-Show USA. NESQLUG is sponsoring the 1997 QL Show. Bedford, Pennsylvania (about halfway between Harrisburg and Pittsburg). Bill Cable (RR3 Box 92, Cornish, NH 03745, USA, Phone : (603) 675-2218, bcable@coat.com) and Ed Kingsley (Edk4@aol.com) can be contacted for details.
Saturday, 24th of May 1997	The Netherlands, Eindhoven, St. Joris College - same venue as always.

Club QL International's meeting first quarter 1997, exact date to be confirmed, venue either in Leicester or Milton Keynes.

Hove QL Show



Gatwick Airport	20 miles
Heathrow Airport	68 miles
Shoreham Airport	3 miles
Brighton Railway Station	3 miles
Hove Railway Station	2 miles
London	53 miles



North-East Manchester QL Users Group

North-East Manchester QL Users Group incite all QL users and traders to join us in our first "USER" friednly workshop in Manchester.

The date for your diaries - Saturday 8th March 1997.

The Venue - The Gardens Hotel, Picadilly, Manchester

Easy Access by all forms of transport:
- **Manchester Airport & train to Piccadilly or Victoria Station.**
- **Metrolink to Piccadilly Gardens**
- **Canal to Piccadilly**
- **Bus & Car to Piccadilly Gardens**
- **Coach to Chorlton Street**
- **Shank's pony to Piccadilly Gardens**

Facilities available from 8.00 am
- **Traders are in Ed's bar**
- **Users in the Beadon Suite**
- **Talks by traders on QXL2 and Aurora**
- **NEMQLUG talks on the QL in the Workplace, EasyPointer, Genealogist Extended and Communications**

We hope to finish with our panel of "experts" answering your questions in open forum, and a "dutch treat" dinner at 7.30 pm. Hotel accomodation is available at special rates for those who wish to stop over.

Further information from: Sarah Gilpin, 181 Urmston Lane, Stretford, Manchester M32 9EH.
Tel. 0161 865 2872, Fax 01204 303728